

2 0 2 5

# SMACNA ANNUAL CONVENTION

*Maui, Hawaii*

OCTOBER 26-29

 Monday, October 27

 10:30-11:30 AM | Hibiscus Room



**Sheet Metal Manufacturing:  
Measure What Matters**



## **Matt Cordova**

Director of Construction Technology

Hermanson



## **Jake Olsen**

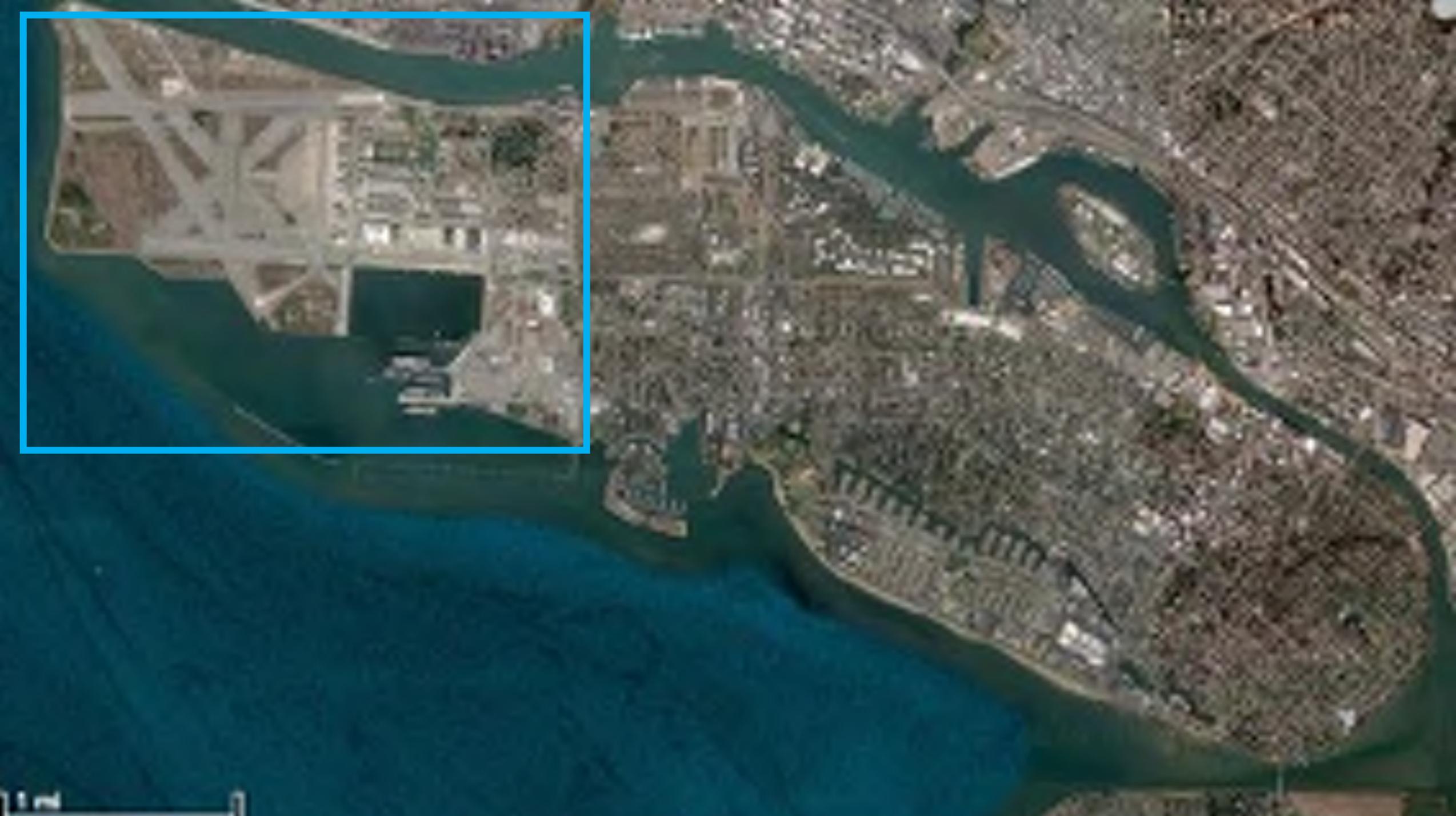
CEO

Stratus

NBC  
WHITE  
PAPER

 NBC NEWS





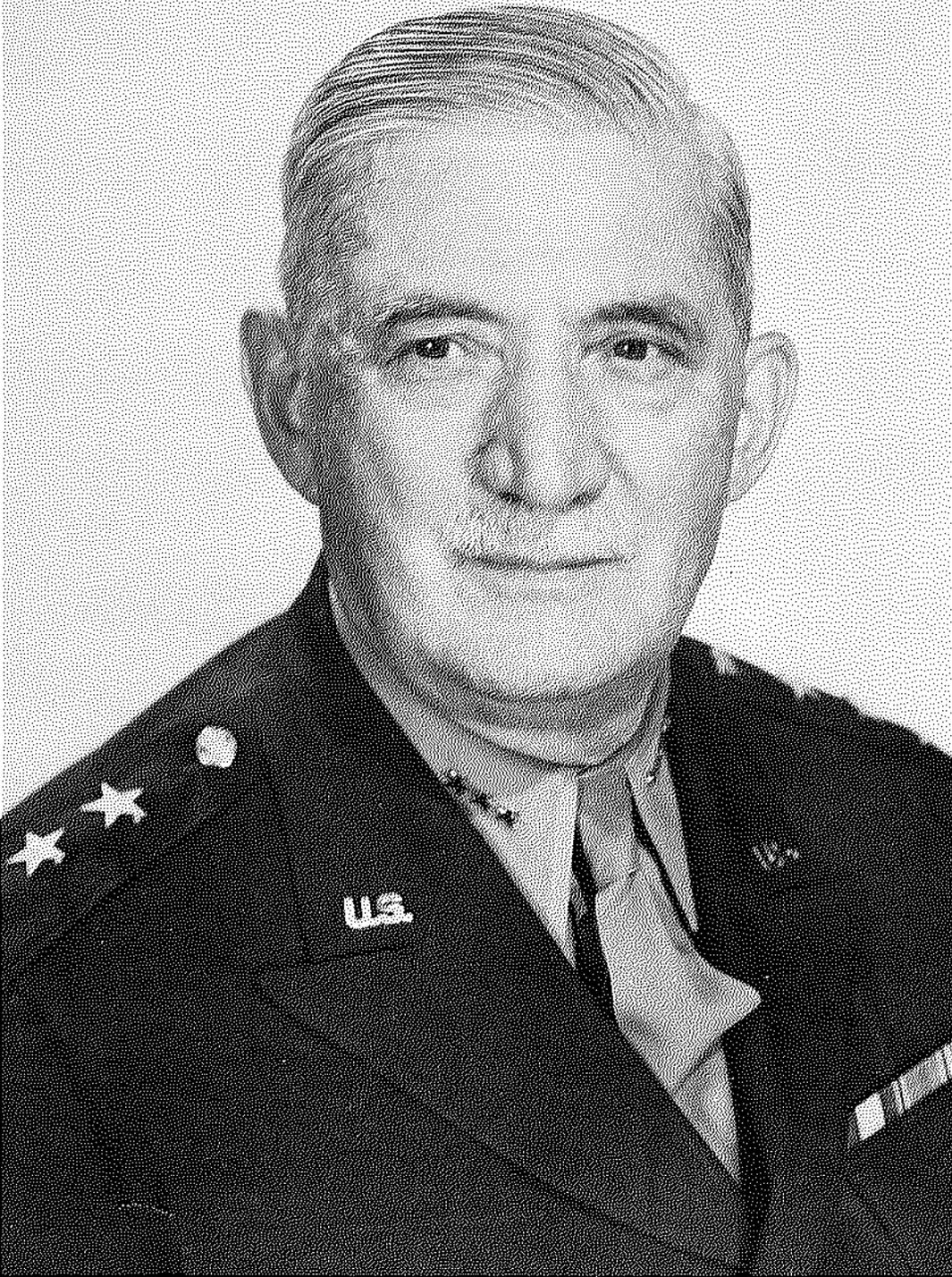
# NAVAL AIR STATION ALAMEDA











"We won because we smothered the enemy in an avalanche of production, the like of which he had never seen, nor dreamed possible"

***William S Knudsen***

*Lieutenant General*

*Director of War Production*

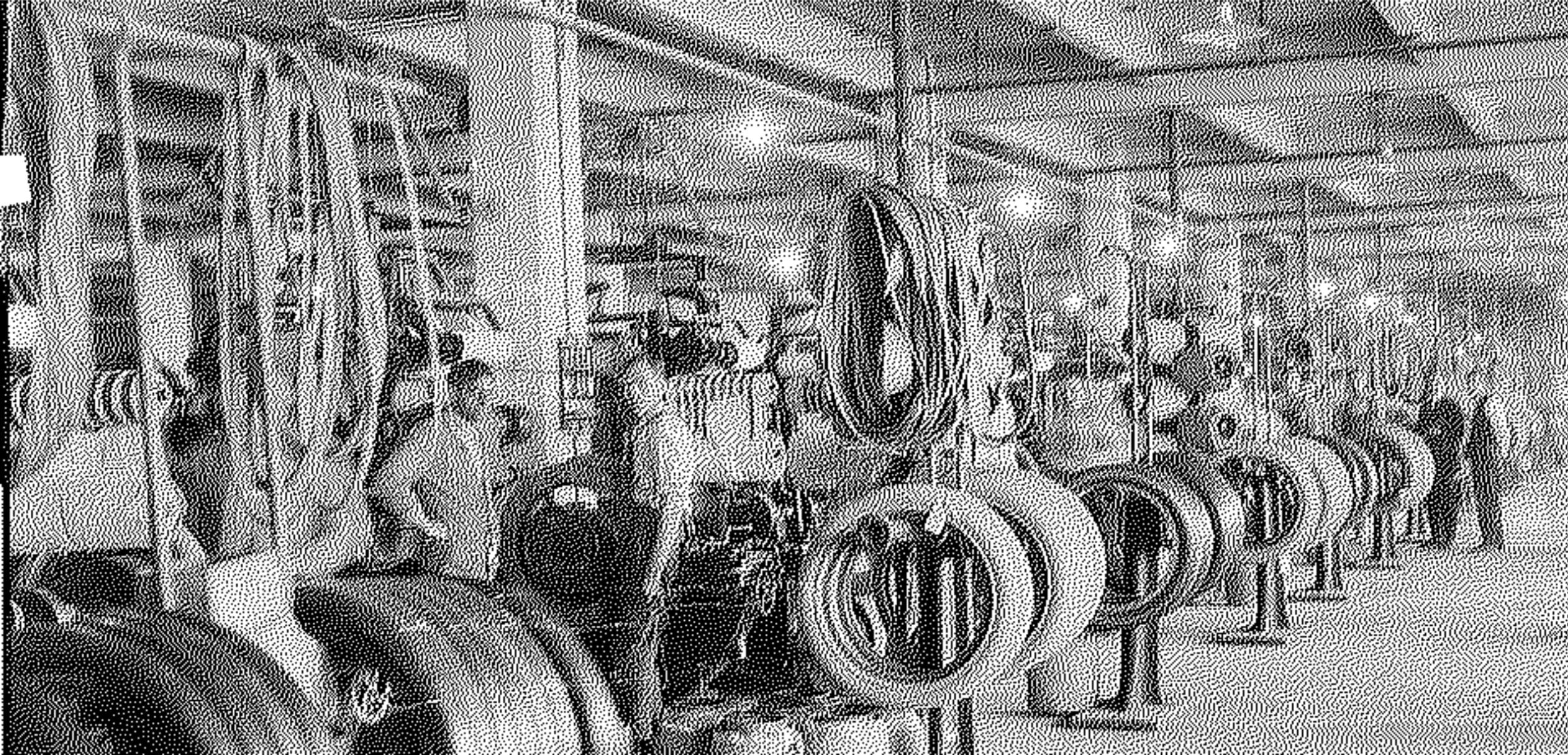
• 1939: 3,000 / year

1944: 300,000 / year



• 1939: 231t / year

1944: 920,000t / year



**While the workforce lost: 16M – 20%**



# We Can Do It!



*J. Howard Miller '43*

POST FEB. 15 TO FEB. 28

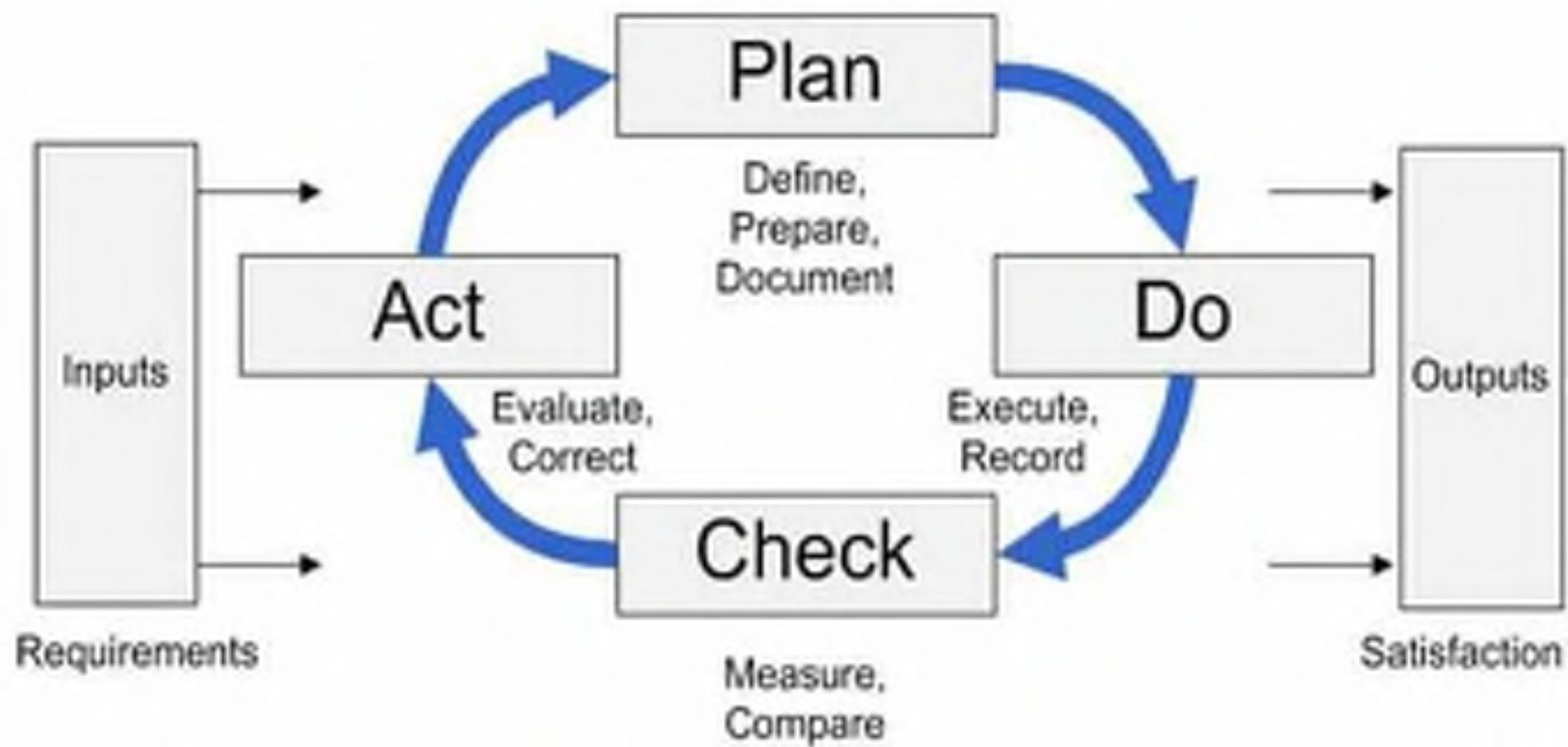


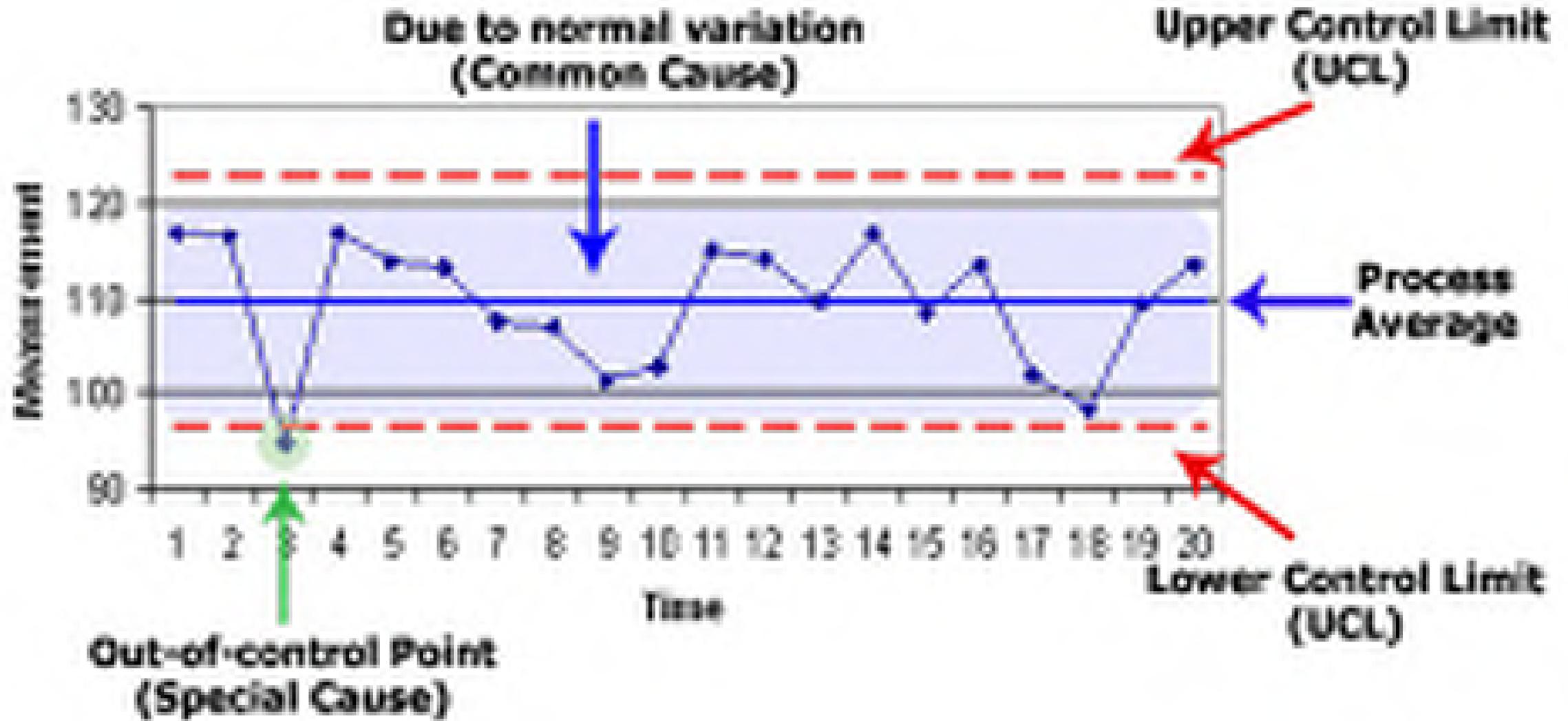
WAR PRODUCTION CO-ORDINATING COMMITTEE





*Western Electric Company;*  
HAWTHORNE WORKS  
Putting on the Lead Sheath - Lead Press Room  
of the  
Largest Telephone Cable Plant in the World

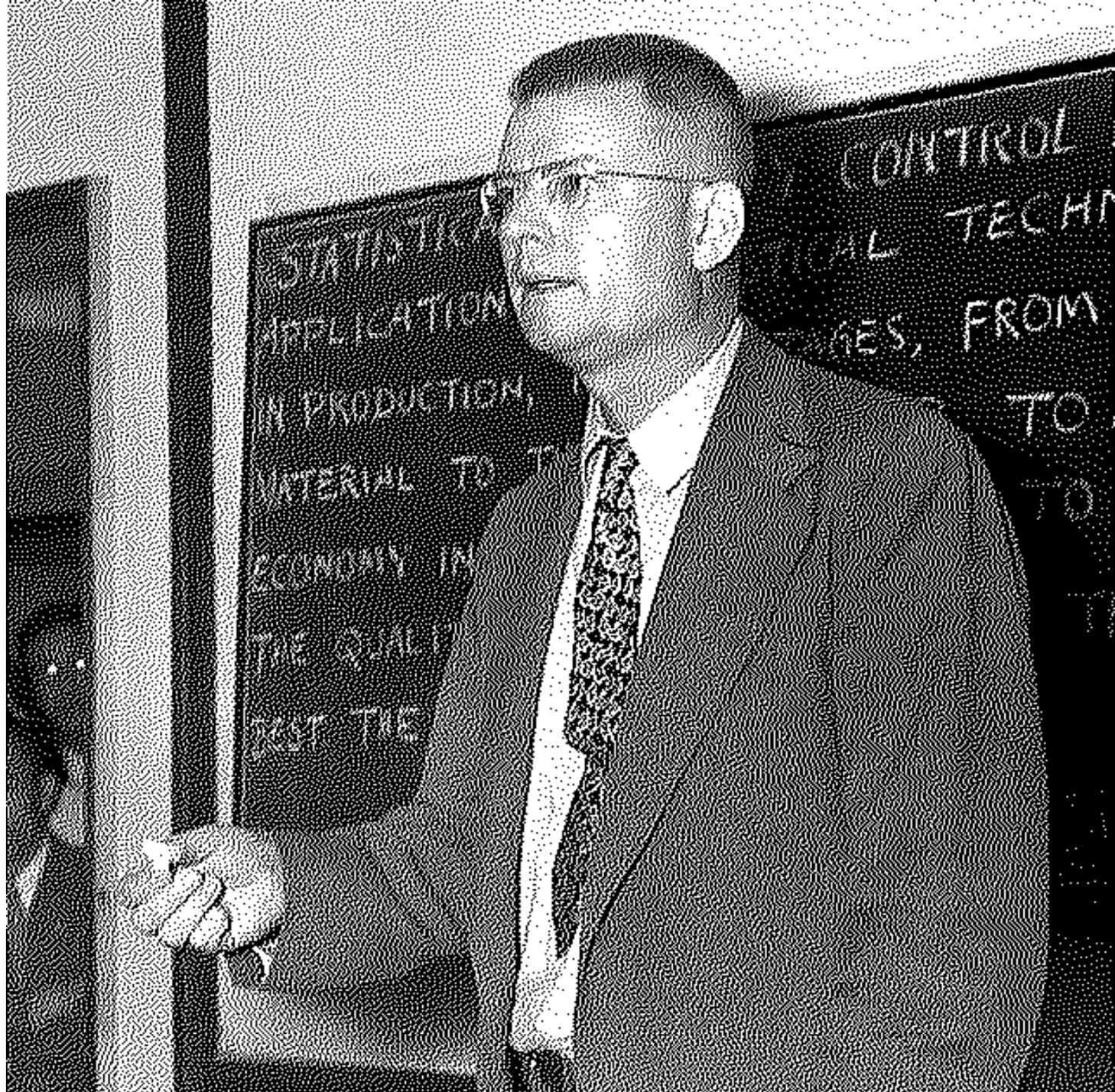


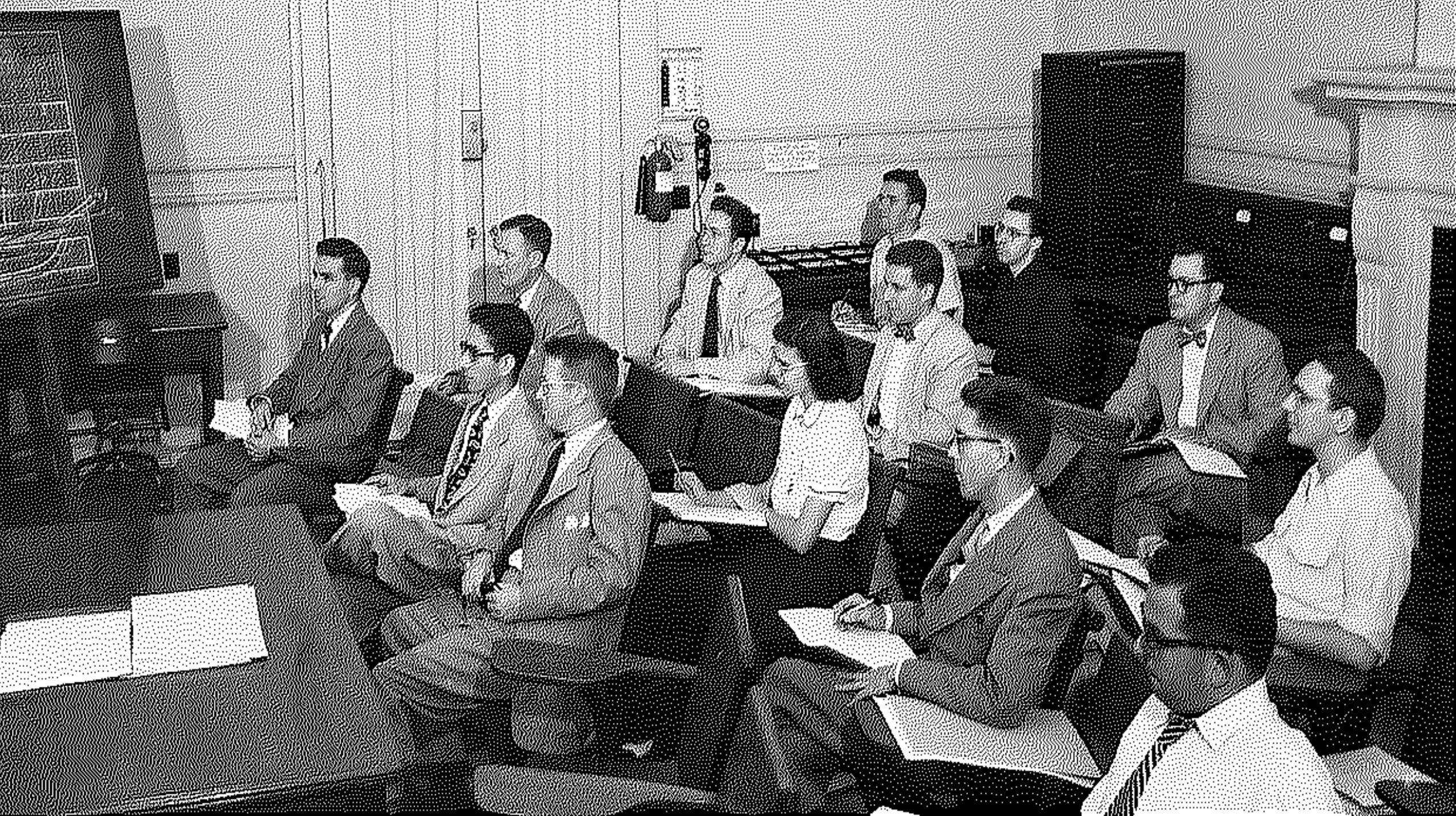




STANFORD  
UNIVERSITY

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**LOCKHEED**



**NORTH  
AMERICAN  
AVIATION**



**CHRYSLER**

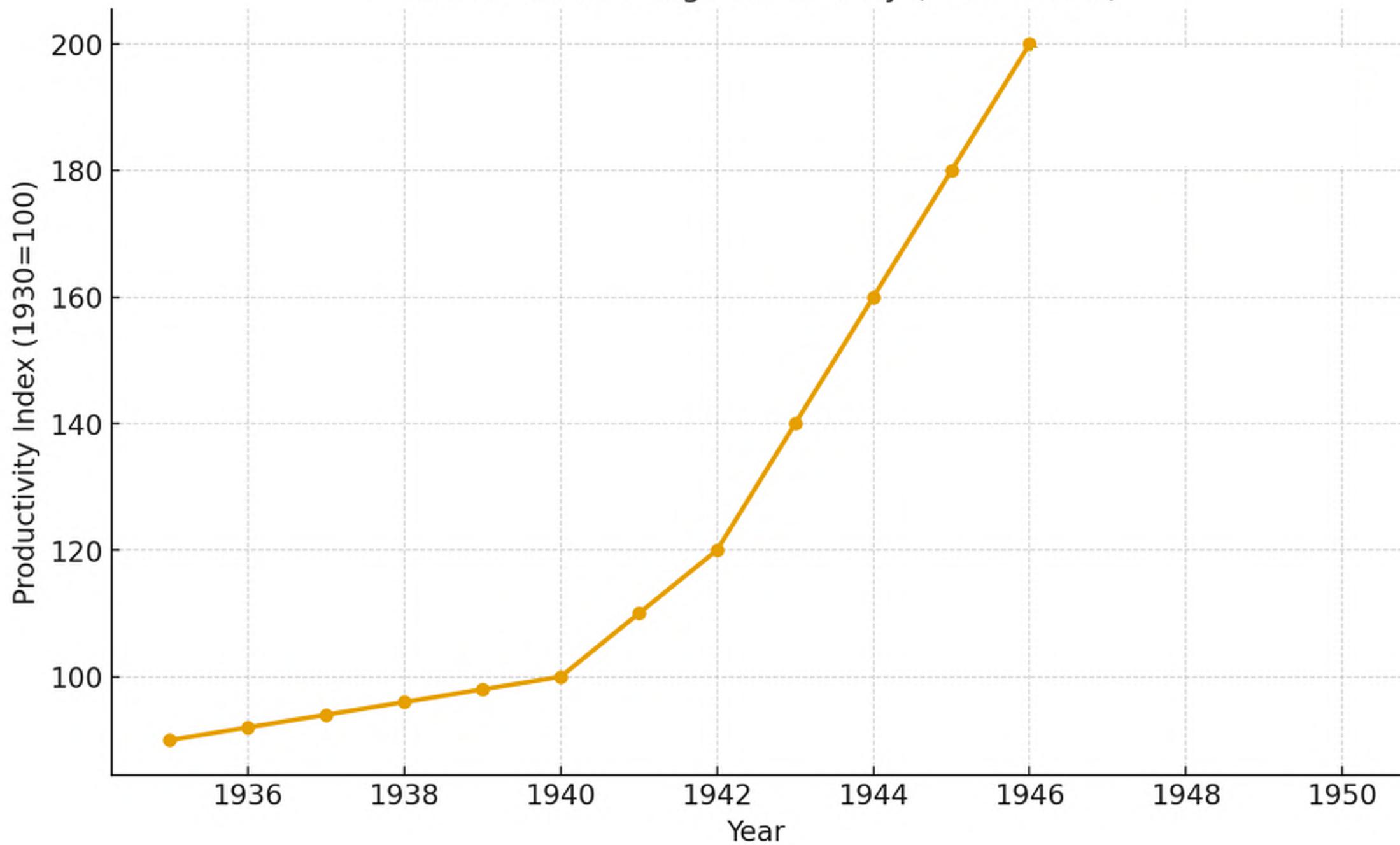
**WILLYS KAISER**



**RCA**



U.S. Manufacturing Productivity (1935-1950)





# Chicago Daily Tribune

HOME

# THE WAR IS OVER!

**EXPLAIN RADAR**  
**THE MAGIC EYE**  
**OF ARMY, NAVY**

**It Saw All in Dark**  
**Never Fails**

**Petain's Fate**  
**Is Weighed by**  
**24 Man Jury**

**WONDER IF HE STILL BLAMES THE BRITISH?**



**PRESIDENT ANNOUNCES JAPANESE**  
**ACCEPT ALLIED TERMS FOR PEACE**

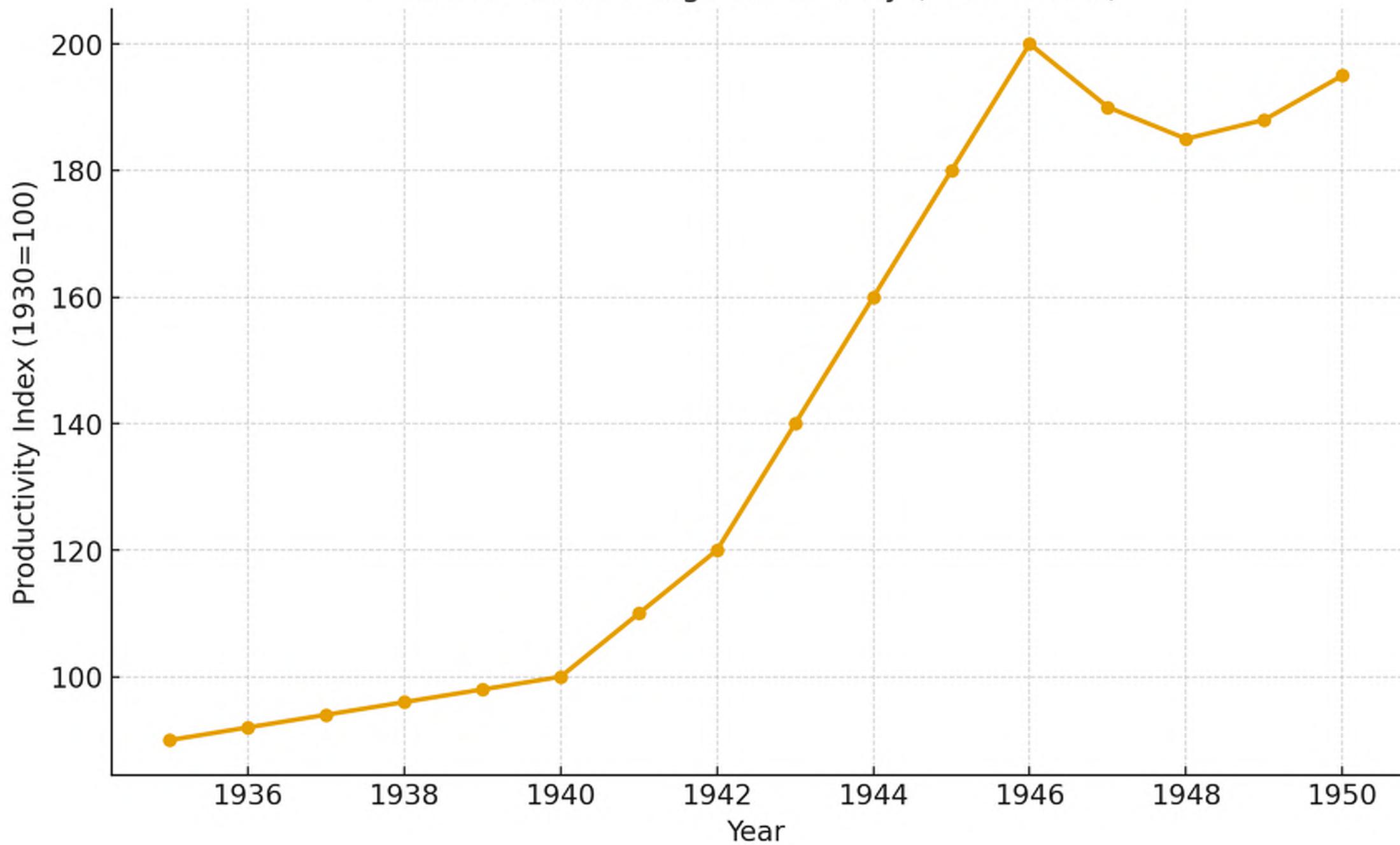
**America, Britain,**  
**Russia, and China**  
**Reverse Note**

**B-29S HIT BOMB**  
**ISLES IN 400**  
**PLANE ATTACK**

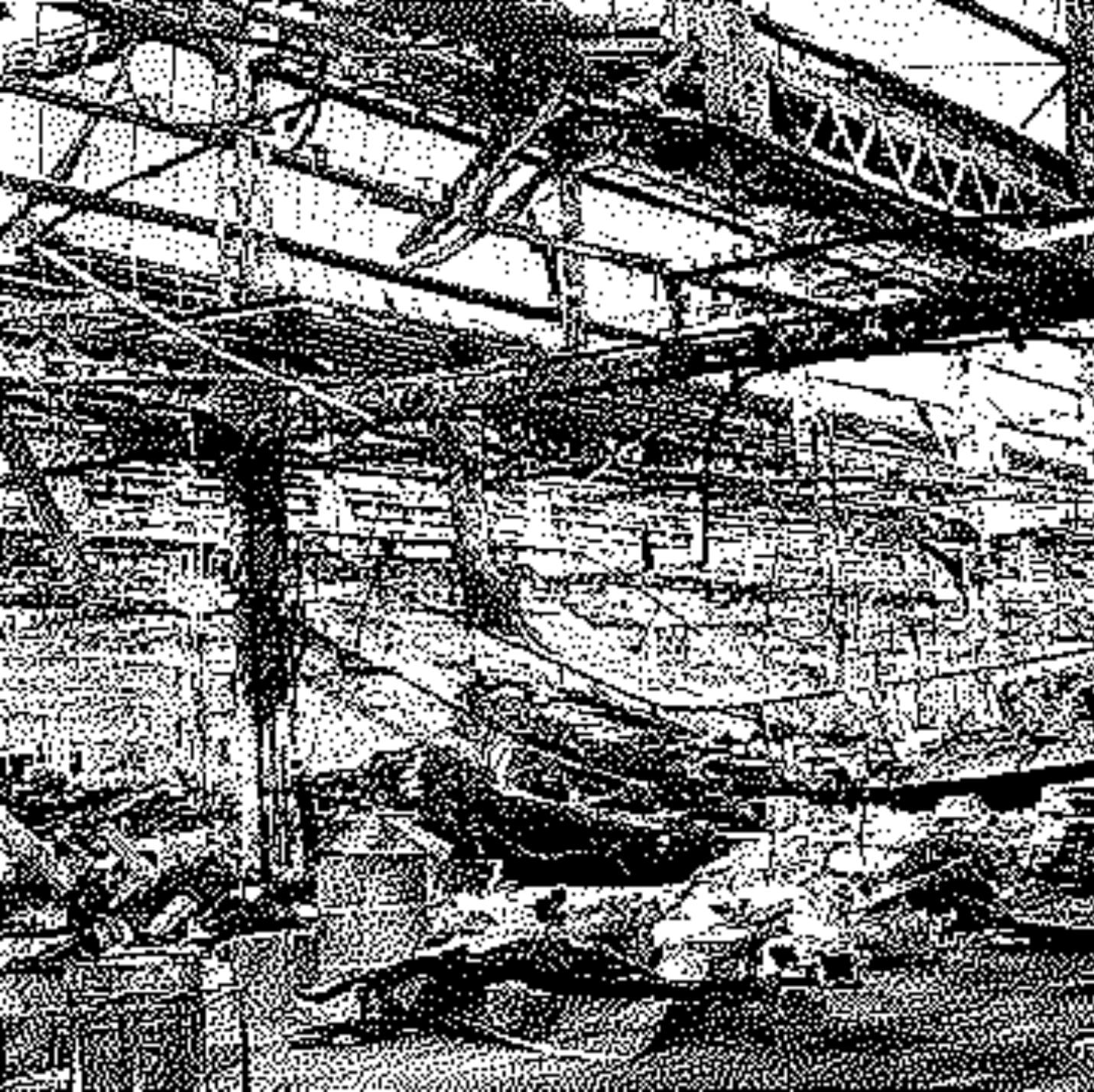
**Tells Reporters of**  
**Decision Ending**  
**Long Conflict**



# U.S. Manufacturing Productivity (1935-1950)

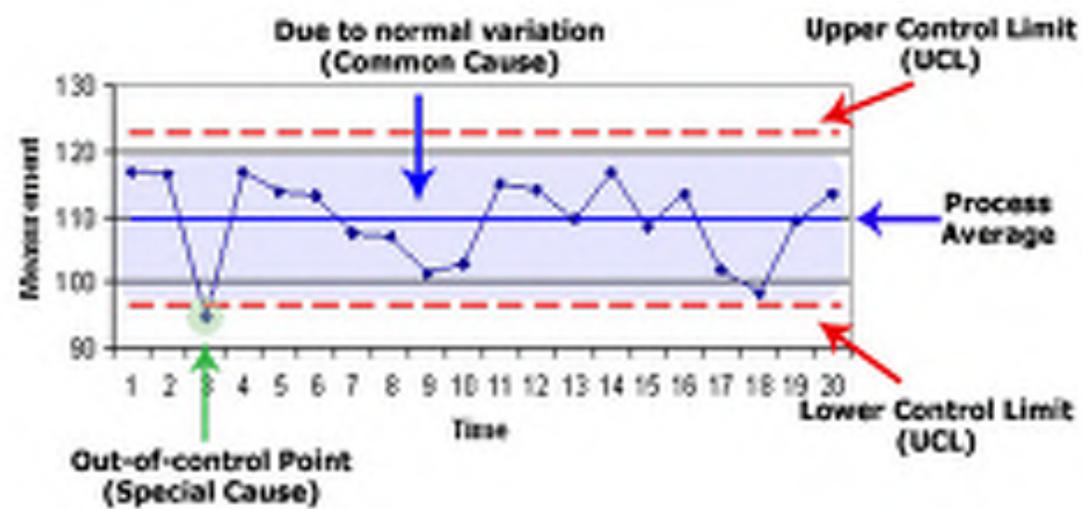
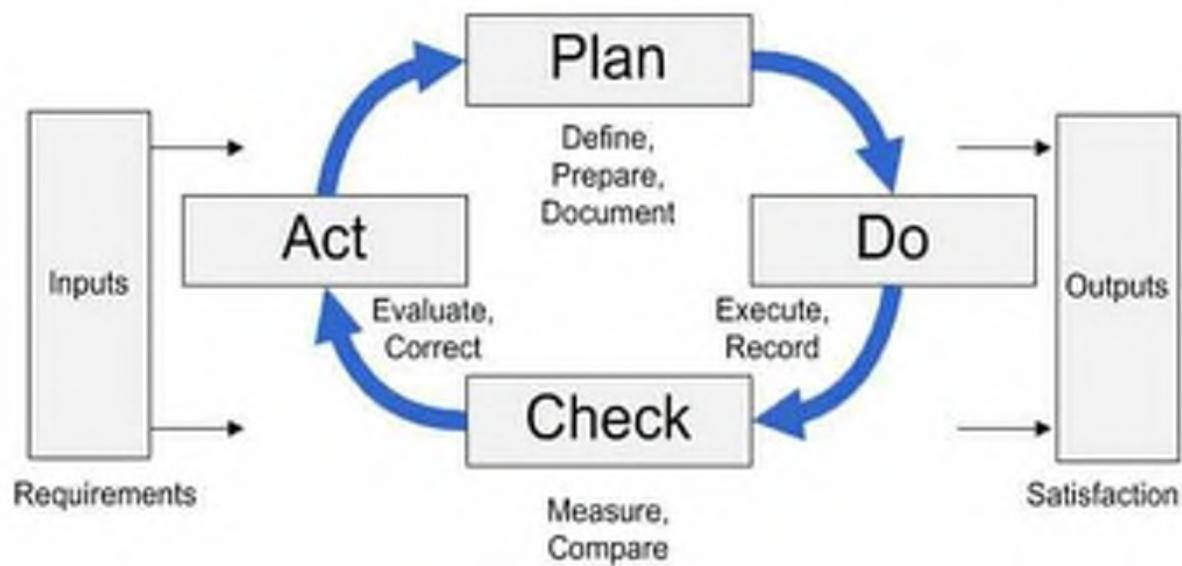


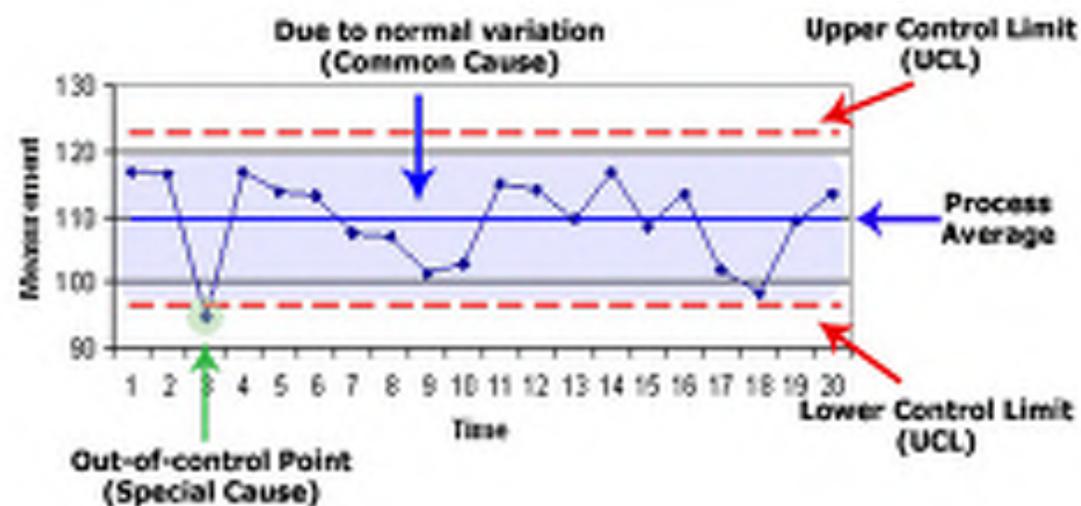
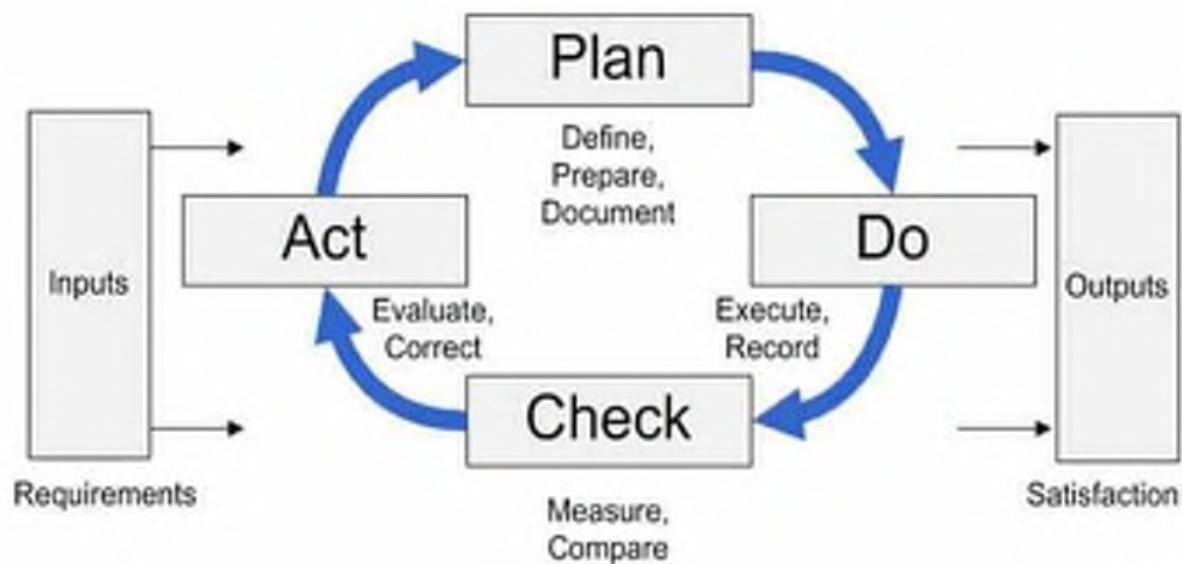




PURPOSE A - Action on  $H_0$  already  $\bar{x}$   
What shall we do with it?  
"acceptance sampling" is one.  
PURPOSE B - Action on  $H_1$   
adjustments, ret.







# KAIZEN

PHILOSOPHY OF CONTINUOUS IMPROVEMENT

kai

zen

改

善

change

good

## Appreciation for a System

How to lead and optimize a system – not destroy it!  
Joy in Work. Respect.

## Understanding Variation

Conclusions we can/cannot make from data and observations. Actions to take.

The System of Profound Knowledge

## Theory of Knowledge

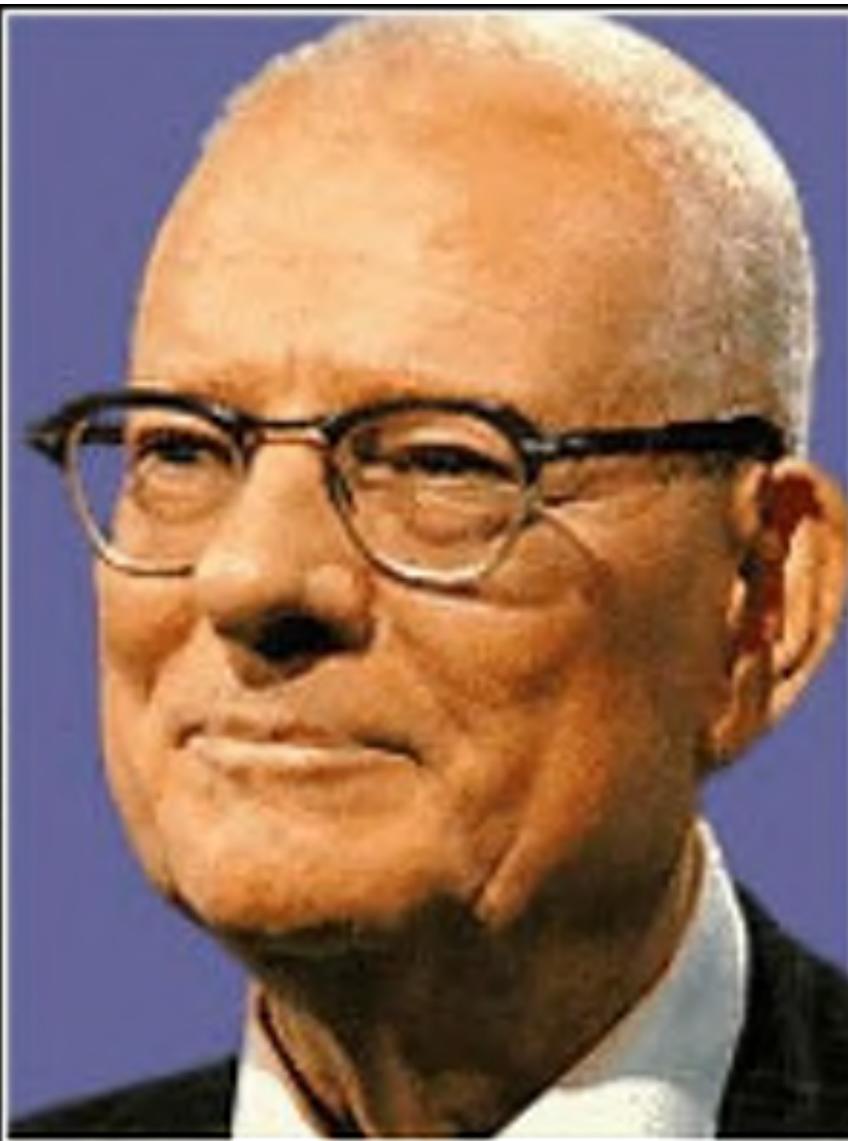
Is what we “know” really so?  
Learning – Improvement – Rational Thinking.

## Psychology

How humans react and interact. Beliefs – Behaviors – Consequences.

# Essential Lean Manufacturing Tools Categories





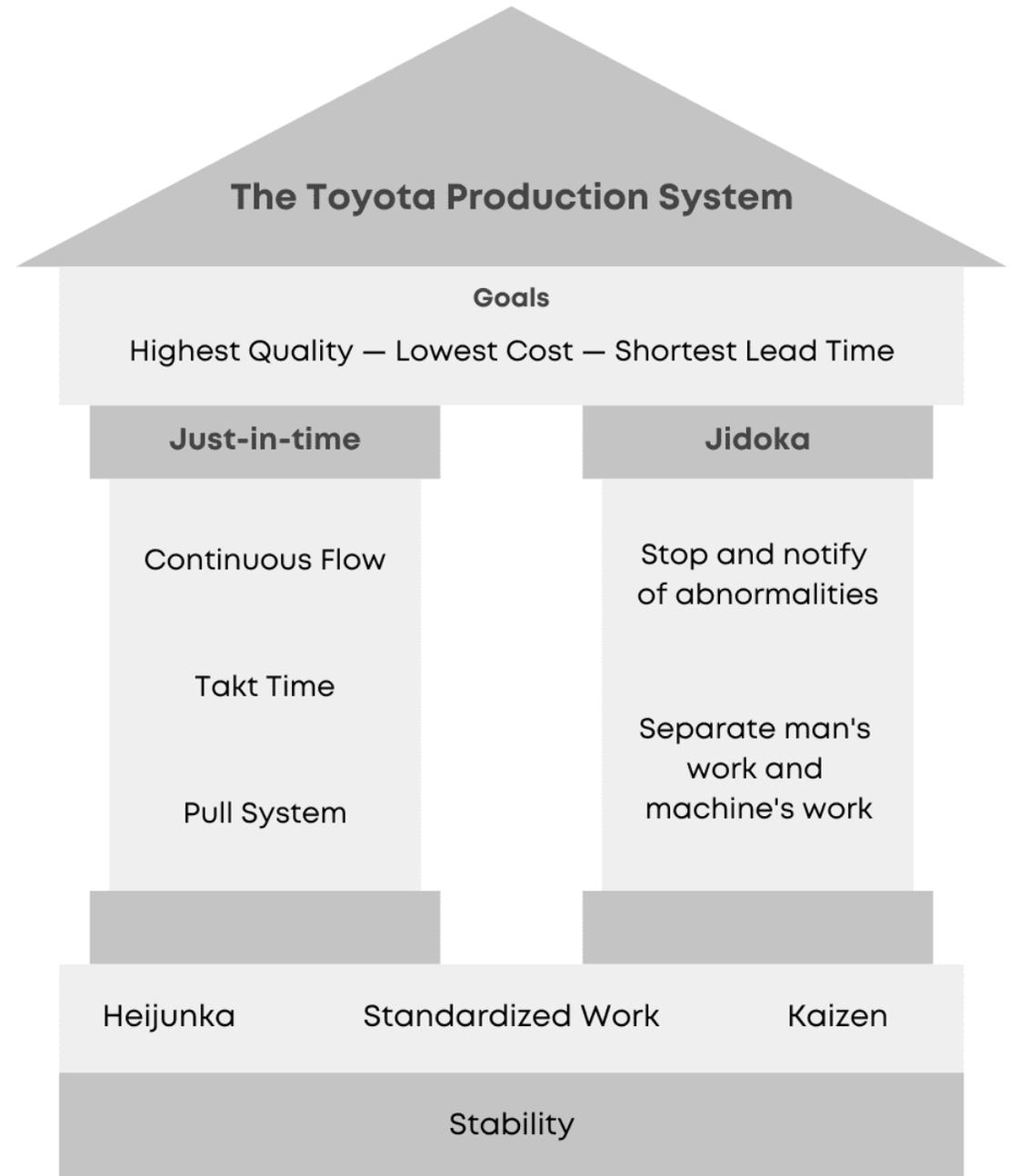
Eighty-five percent of the reasons for failure are deficiencies in the systems and process rather than the employee. The role of management is to change the process rather than badgering individuals to do better.

— *W. Edwards Deming* —

AZ QUOTES



**TOYOTA**



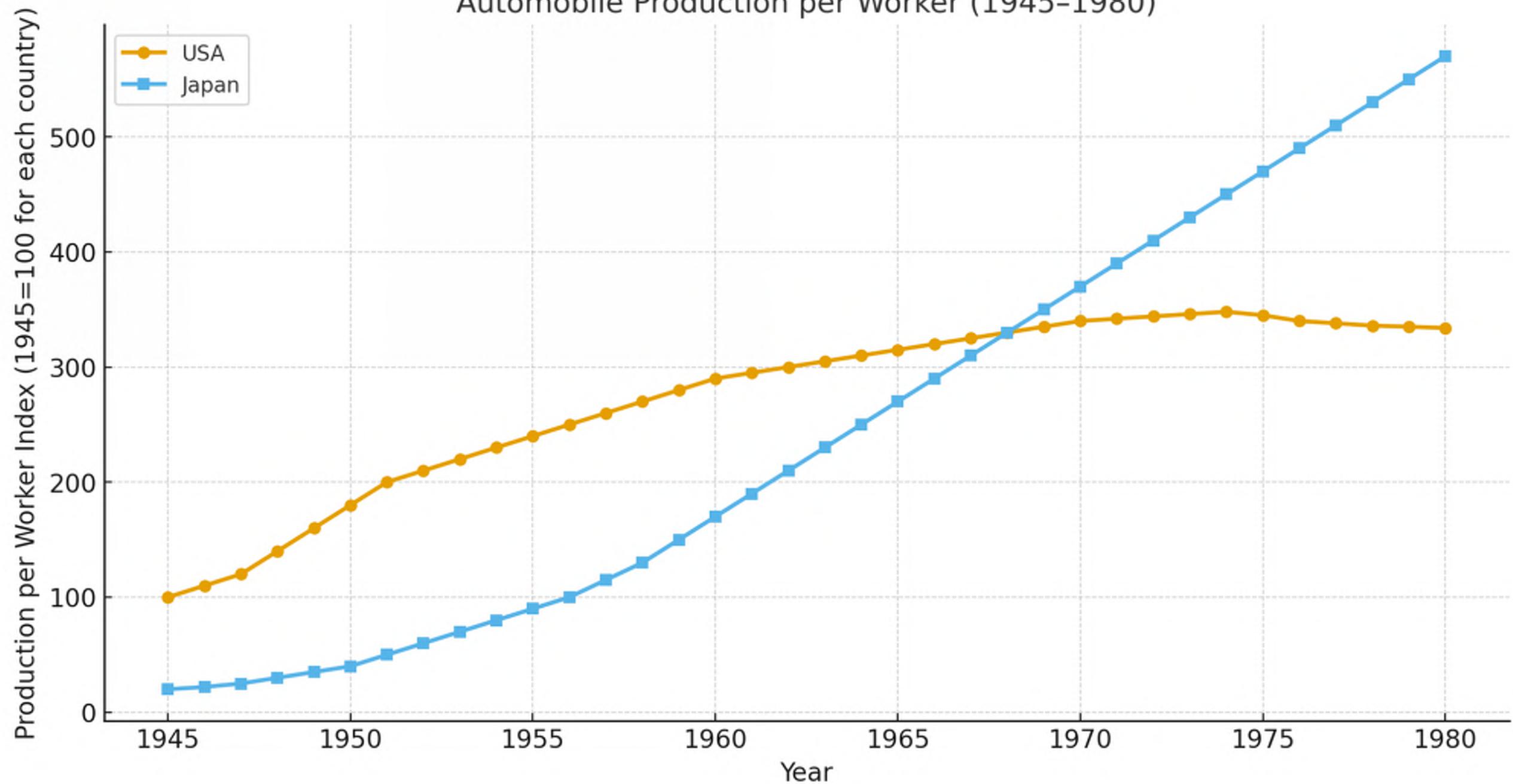
# Toyota & Deming, Today

“There is not a day I don't think about what Dr. Deming meant to us. Deming is the core of our management.”

- Shoichiro Toyoda, Honorary Chairman and director of Toyota

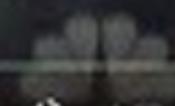


Automobile Production per Worker (1945-1980)



**IF JAPAN CAN...**

*Why Can't We?*

 NBC NEWS

0:57 / 1:16:38





**NUMMI**  
New United Motor Manufacturing, Inc.

Union Plant

California

Worst Performing  
GM Plant



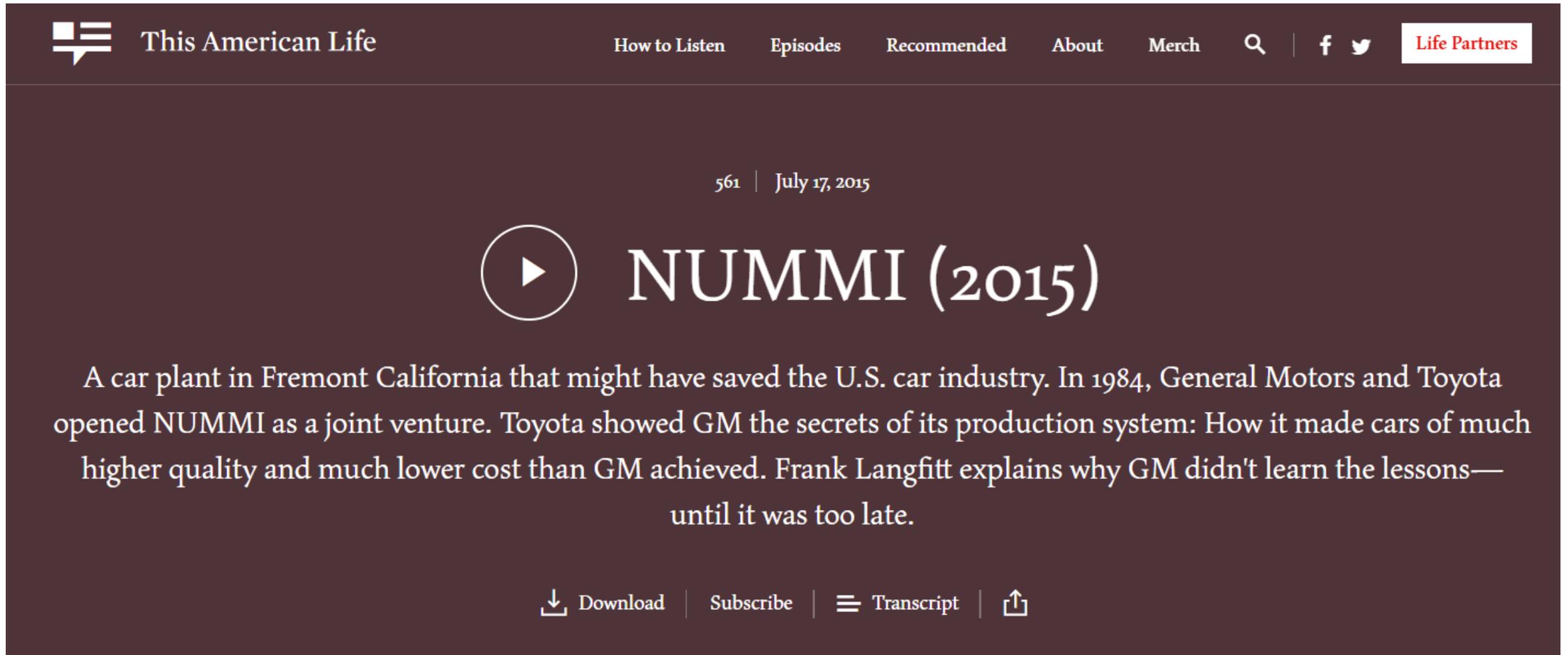
## General Motors Framingham versus Toyota Takaoka versus NUMMI Fremont, 1987

	<i>GM Framingham</i>	<i>Toyota Takaoka</i>
Assembly Hours per Car	31	16
Assembly Defects per 100 Cars	135	45
Assembly Space per Car	8.1	4.8
Inventories of Parts (average)	2 weeks	2 hours

## General Motors Framingham versus Toyota Takaoka versus NUMMI Fremont, 1987

	<i>GM Framingham</i>	<i>Toyota Takaoka</i>	<i>NUMMI Fremont</i>
Assembly Hours per Car	31	16	19
Assembly Defects per 100 Cars	135	45	45
Assembly Space per Car	8.1	4.8	7.0
Inventories of Parts (average)	2 weeks	2 hours	2 days

**“NUMMI didn’t just improve – it went from GM’s worst plant to becoming its best”**



The screenshot shows a dark-themed podcast player interface. At the top left is the 'This American Life' logo. The top navigation bar includes links for 'How to Listen', 'Episodes', 'Recommended', 'About', 'Merch', a search icon, and social media icons for Facebook and Twitter. A 'Life Partners' button is located in the top right corner. The main content area features the episode number '561' and the date 'July 17, 2015'. Below this is a large play button icon and the title 'NUMMI (2015)'. A paragraph of text describes the episode's content: 'A car plant in Fremont California that might have saved the U.S. car industry. In 1984, General Motors and Toyota opened NUMMI as a joint venture. Toyota showed GM the secrets of its production system: How it made cars of much higher quality and much lower cost than GM achieved. Frank Langfitt explains why GM didn't learn the lessons—until it was too late.' At the bottom, there are icons and text for 'Download', 'Subscribe', 'Transcript', and a share icon.

This American Life

How to Listen | Episodes | Recommended | About | Merch | 🔍 | [f](#) [🐦](#) | Life Partners

561 | July 17, 2015

 NUMMI (2015)

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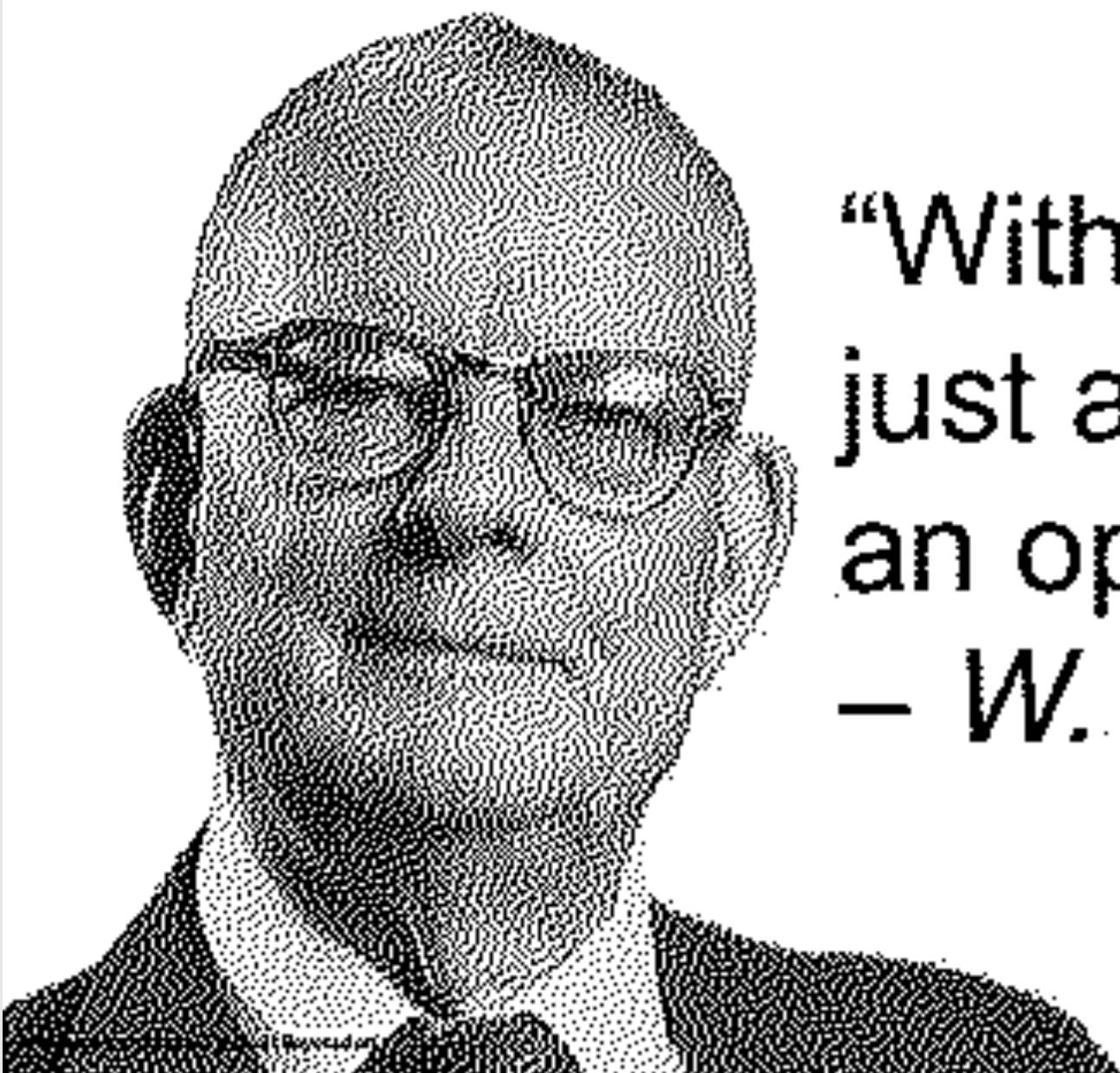
 Download | [Subscribe](#) |  Transcript | 

PDCA: measure your system and continuously improve



**TOYOTA**





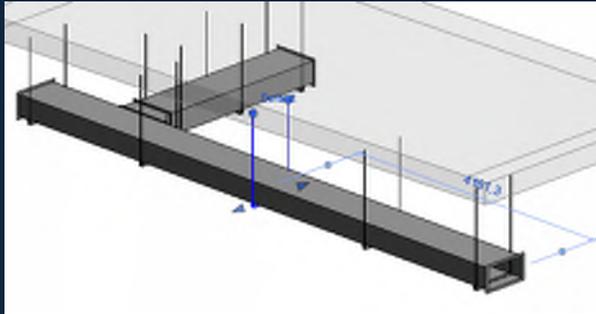
“Without data you’re  
just another person with  
an opinion.”

– *W. Edwards Deming*



# Hangers

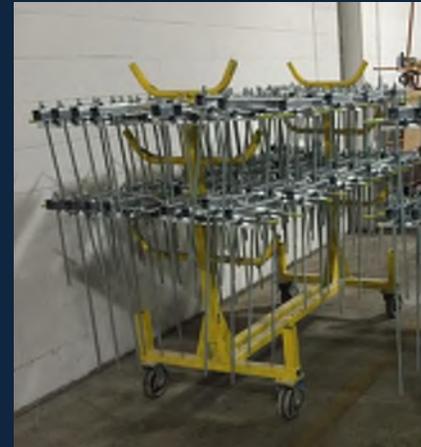
BIM



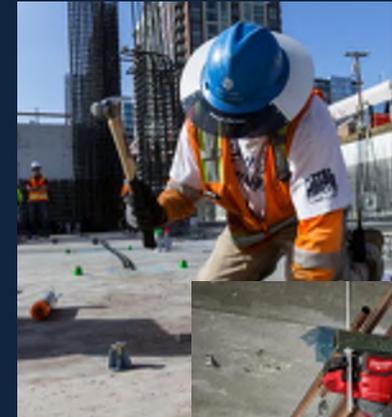
Fabricate



Tracking  
& Shipping



Field  
Install



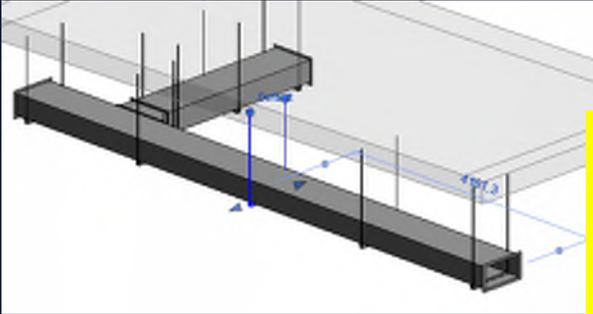
# Hangers

BIM

Fabricate

Tracking  
& Shipping

Field  
Install



Material Cost (including waste)

Labor

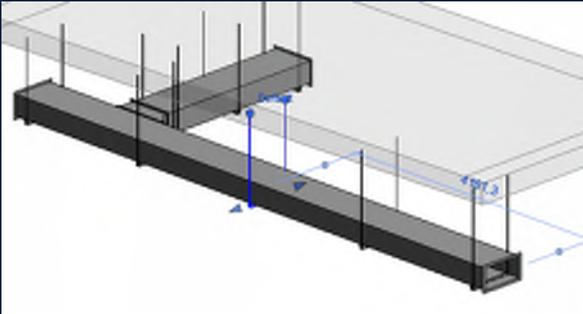
# Hangers

BIM

Fabricate

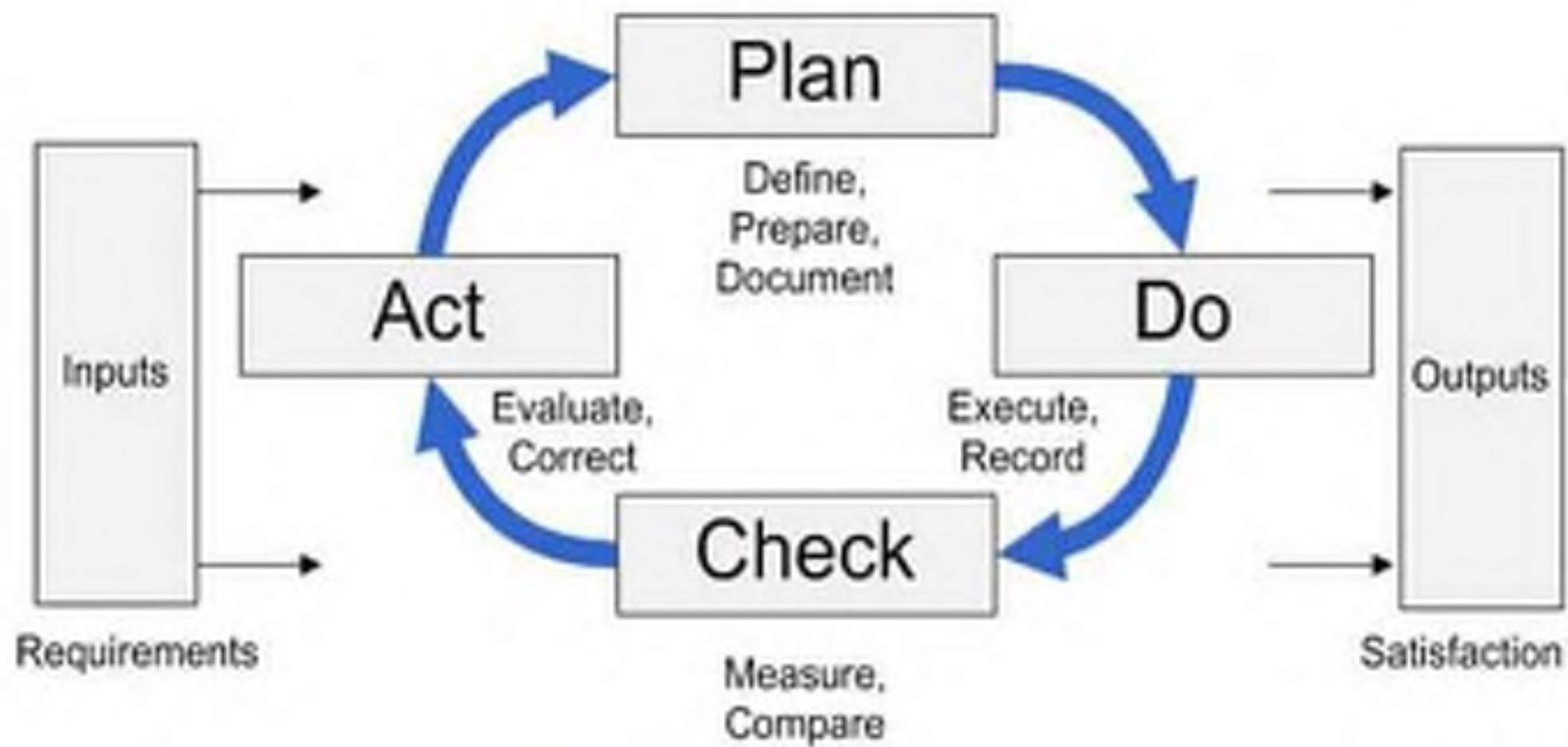
Tracking  
& Shipping

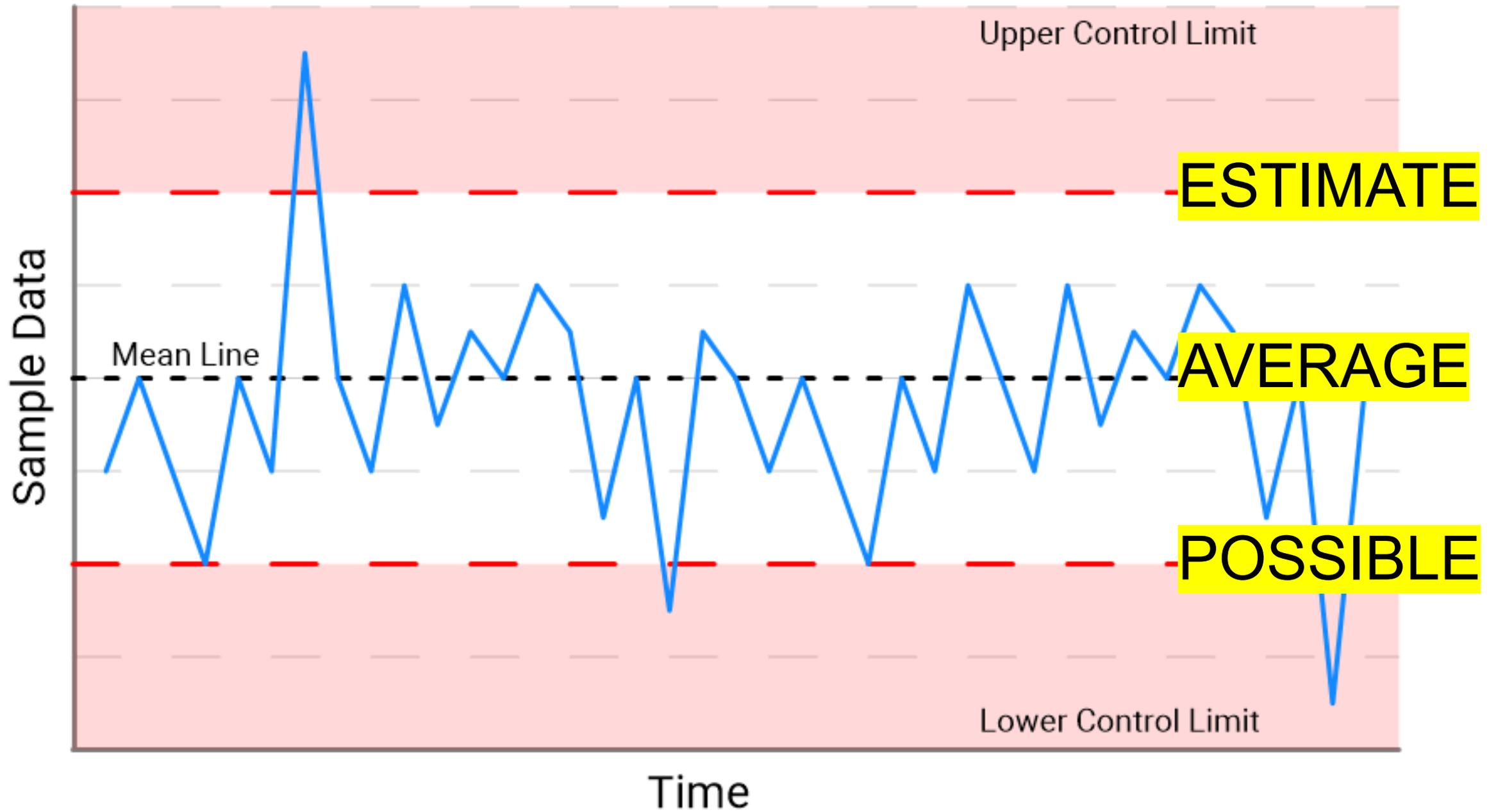
Field  
Install



1. Model each rod to length / vs approximate length
2. Batch lengths of rod in 2", 4", 6", 12" increments
3. Model ancillaries, cal-sils, washers, nuts
4. Limit strut to 6" increments
5. Individually label each hanger vs. general type
6. Package entire floor, package by small area
7. Order placement on cart for faster shakeout
8. Get hangers up, then trim
9. Use Grippler?







# System Measurement – System Optimization



BIM



Fabricate



Tracking  
& Shipping



Field  
Install

# stratus



Measure, Predict  
& Improve



Who is doing this within SMACNA?

# Meet the Speaker

Matt Cordova



## *Bridging Innovation and Field Execution*

As Director of Construction Technology at Hermanson Company, Matt Cordova leads efforts to integrate digital tools, data, and field technology to improve project delivery and collaboration. With deep industry experience and a passion for innovation, he's helping shape the future of technology-driven construction.

# Hermanson Company

## Introduction & Company Overview



Founded in  
1979



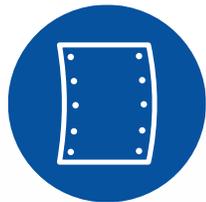
2024 Revenue  
\$550 M

2025 Revenue (Projected)  
\$700 M



Design  
Fabrication  
Installation

### Self-Performing Union Labor



Sheet  
Metal



Pipefitting



Plumbing



Industrial  
Metals

# WHAT IS CONNECTED DATA?

**"Connected data" refers to data from multiple sources that have been integrated and linked together, allowing for a comprehensive view of a subject by highlighting the relationships between different data points, ultimately enabling better decision-making through analysis of this unified information.**

# Operational Technology

## STRATUS - Package Dashboard - Groundwork

Package Name	Description	New_Sub Job	Old_Sub Job	Jobsite Delivery Date	Assemblies	Total Parts	Coil Duct Count	Spiral Count	Total Weight	Package Color	Category	Status	Shop_Comments	Field_Comments	Coil Duct Processed	Spiral Duct Processed	Red Carts
LVR PLT																	
616-PK18-LB-L10 RISERS		A0004519,A0004520,A0004520	Empty	11/12/2025	0	0	0	0	0	Empty	SMF	Packaged	Empty	no spooling, red carts	No	No	0
616-PK12-L1A-GENEX		A0004514	Empty	11/12/2025	0	5	1	0	721	Empty	SMF	Packaged	Empty	TBD	0	No	0
616-PK24-L5-AMN S		A0004518	Empty	11/05/2025	0	143	1	32	1360	Empty	SMF	Packaged	Empty	no spooling, red carts	No	No	0
616-PK23-L5-AMN N		A0004518	Empty	11/05/2025	0	99	4	21	764	Empty	SMF	Packaged	Empty	no spooling, red carts	No	No	0
616-PK22-L5-APT DUCT		A0004518	Empty	11/05/2025	0	22	0	0	196	Empty	SMF	Packaged	Empty	no spooling, red carts	No	No	0
616-PK21-L5-LVR PLT		A0004518	Empty	11/05/2025	0	30	0	0	31	Empty	SMF	Packaged	Empty	loose, wire cage	No	No	0
616-PK15-L5-L7 RISERS		A0004518 / A0004519	Empty	10/15/2025	0	31	12	0	1472	Tan	SMF	Material Out	BUILD SUB DUCT IN EX TO FIT INSIDE EX RISER DUCT	no spooling red carts	No	No	0
616-PK20-L4-DUCT		A0004517	Empty	10/15/2025	0	25	1	0	254	Blue	SMF	Material Out	Empty	no spooling, red carts	No	No	0
616-PK19-L4-LVR PLT		A0004517	Empty	10/15/2025	0	25	0	0	16	Pink	SMF	Material Out	Empty	loose / wire square cage	No	No	0
616-PK17-L3-DUCT		A0004516	Empty	10/08/2025	0	21	2	0	228	Purple	SMF	Kent Shipped	1 Red Cart Not Spooled	no spooling, red carts	Yes	No	0
616-PK16-L3-LVR PLT		A0004516	Empty	10/08/2025	0	25	0	0	16	White	SMF	Kent Shipped	loose	loose, wire cage	No	No	0
616-PK11-L2-L4 SHAFTS		A0004515,A0004516,A0004517	Empty	10/08/2025	0	21	5	0	639	Magenta	SMF	Kent Shipped	3 Red Carts, Not Spooled	no spooling, red carts	Yes	No	0
616-PK14-L2-DUCT		A0004515	Empty	10/03/2025	0	26	2	0	191	Red	SMF	Field Received	1 Red Cart Not Spooled	no spooling red carts	No	No	0
616-PK8.1-L1-GREASE DUCT		A0004514	Empty	10/03/2025	0	3	0	0	117	Green	SMF	Field Received	WELDED	Empty	No	No	0

- Central hub for all fabrication
- Track delivery and due dates
- Material and gauge details
- Fabrication status by package
- Single source for fabrication data
- Syncs with Revit for publishing

# Operational Technology

## STRATUS - Sheet Metal - Assembly Dashboard

The screenshot displays the STRATUS Assembly Dashboard. The top navigation bar includes 'stratus' and various menu items: Projects, Models, Packages, Assemblies (selected), Containers, Shops, Scan, Jobsites, Shift, and Admin. Below the navigation, there are filters for Project (21-24-25751 - 21-24-25751 Project Alpha), Model (LGES\_HER\_HVAC\_1F0\_8-9\_AL\_R22), Package (AZS-8-9-PK134-L2-EF-DC2-EA), Division (ALL), and Status (ALL). The main section is titled 'Assemblies' and includes an 'Import CSV' button and a table of assembly data.

Assembly Name	Packages	Instance	Parts	Hours	Status	User	Date-Time
EXH-075	AZS-8-9-PK134-L2-EF-DC2-EA		4	0	AZ Shipped	Shop PC - AZ 01	10/23/2025 06:23 AM
EXH-076	AZS-8-9-PK134-L2-EF-DC2-EA		2	0	AZ Shipped	Shop PC - AZ 01	10/23/2025 06:23 AM
EXH-077	AZS-8-9-PK134-L2-EF-DC2-EA		2	0	AZ Shipped	Shop PC - AZ 01	10/23/2025 06:23 AM
EXH-078	AZS-8-9-PK134-L2-EF-DC2-EA		2	0	AZ Shipped	Shop PC - AZ 01	10/23/2025 06:23 AM
EXH-079	AZS-8-9-PK134-L2-EF-DC2-EA		3	0	AZ Shipped	Shop PC - AZ 01	10/23/2025 06:23 AM

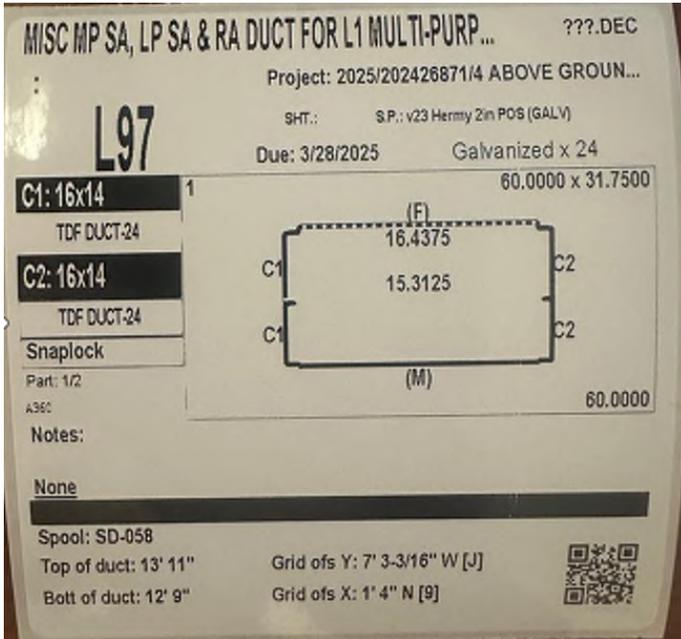
On the right side of the dashboard, there is a detailed view of a specific assembly's status, showing a vertical timeline of events:

- On Hold (7/08/2025 06:25 AM)
- AZ Fabrication In Progress (Marquis Smith, 10/23/2025 08:55 AM)
- DET-Spool Start (Zachary Cainglit, 5/19/2025 07:12 AM)
- SM Shop QC (Shop IPAD - AZ 2, 10/13/2025 10:40 AM)
- Field Received (Aiden McNeill, 10/23/2025 08:16 AM)
- Field Received (Aiden McNeill, 10/23/2025 08:16 AM)
- Field Received (Aiden McNeill, 10/23/2025 08:16 AM)
- Field Installed (Steve Stahl, 9/24/2025 06:35 AM)
- Field Installed (Aiden McNeill, 9/03/2025 02:18 PM)
- Field Received (Jonathan Starling, 10/07/2025 05:41 AM)
- Field Installed (Kevin Roberson, 1/28/2025 01:32 PM)

- Centralized hub for the spooling department.
- Each spool has a status for transparent tracking through the shop.

# Quick Access to Information

## Project Specific Data



**stratus** ☰ ? 🌐 🔔 9+ MC

**Part QR Code Scanned**

**Project**  
20-24-26871 NSD - Crystal Springs

**Model**  
NSD-CrystalSprings-HER-HVAC

**Package**  
CRYS-L1B-PK38-SA&RA

**Assembly**  
SD-058

**Description**  
16x14 L97 (Straight - Rectangular (Decoiled))  
[56-1/16 in]

**Number**  
L97

[View Package](#)

[View Assembly](#)

Tracking Status Kent Shipped ▼

Division [No Division] ▼

Comment

Hours

Cost Type Hangers And Supports - Shop ▼

[Apply](#)

Show 10 Entries

User	Date-Time	Status	Comme
Dave Silowka	2/06/2025	Modeled	Publish
Dave Silowka	2/27/2025	Packaged	Status Added to Packagi
Tina Dannewitz	3/25/2025	Fabrication Scheduled	
Chris Thompson	3/25/2025	Processed for Fabrication	
Shop PC - SM 02	3/26/2025	Fabrication Complete	
Mike Barnett	3/28/2025	Kent Shipped	

- Fabrication file creation (MAJs) - one location connects data to all parts
- QR Codes
- Ductwork elevations
- Spool Numbers
- CAMduct labels

# Quick Access for Shop & Field

Shop Pre-Fabrication access and tracking

**stratus** [Menu] [MC]

**Part QR Code Scanned**

**Project**  
20-24-26871 NSD - Crystal Springs

**Model**  
NSD-CrystalSprings-HER-HVAC

**Package**  
CRYS-L18-PK38-SA&RA

**Assembly**  
SD-058

**Description**  
16x14 L97 (Straight - Rectangular (Decoiled))  
[56-1/16 in]

**Number**  
L97

[View Package](#) ←

[View Assembly](#)

**stratus** [Projects] [Models] [Packages] [Assemblies] [Containers] [Shops] [Scans] [Jobsites] [Shift] [Admin]

Dashboard | Schedule | Status Board | **Viewer** | Analytics

Project: 20-24-26871 - 20-24-26871 NSD - Crystal Springs | Model: NSD-CrystalSprings-HER-HVAC | View: STRATUS-HVAC-OVERALL [3D] | Package: CRYS-L18-PK38-SABRA | Category: FAB - Sheet Metal

Tracking: Status: **Kent Shipped** | Division: [No Division] | Comment: | Hours: | Cost Type: Hangers And Supports - Shop Labor | Apply

Home | BOM | Cut Lists | Point Lists | Status Sheet | CAD Sheet | Markups | Notes | Attachments | Tasks | Tracking | Properties

**Assemblies** | Assembly Report: Default | Part Report: SM\_Parts List (Package Viewer)

Assembly Name	Packages	Parts	Hours	Status	Tasks	Attachments	Remove
EA-170	CRYS-L18-PK38-SABRA	2	0	Kent Shipped		[H]	[X]
EA-171	CRYS-L18-PK38-SABRA	2	0	Kent Shipped		[H]	[X]
EA-172	CRYS-L18-PK38-SABRA	4	0	Kent Shipped		[H]	[X]
EA-173	CRYS-L18-PK38-SABRA	2	0	Kent Shipped		[H]	[X]
EA-174	CRYS-L18-PK38-SABRA	3	0	Kent Shipped		[H]	[X]
EA-175	CRYS-L18-PK38-SABRA	3	0	Kent Shipped		[H]	[X]
EA-176	CRYS-L18-PK38-SABRA	2	0	Kent Shipped		[H]	[X]
EA-177	CRYS-L18-PK38-SABRA	4	0	Kent Shipped		[H]	[X]
SA-129	CRYS-L18-PK38-SABRA	2	0	Kent Shipped		[H]	[X]
SD-057	CRYS-L18-PK38-SABRA	2	0	Kent Shipped		[H]	[X]
SD-058	CRYS-L18-PK38-SABRA	4	0	Kent Shipped		[H]	[X]
SD-059	CRYS-L18-PK38-SABRA	2	0	Kent Shipped		[H]	[X]
SD-060	CRYS-L18-PK38-SABRA	4	0	Kent Shipped		[H]	[X]

Showing items 1 to 13 of 13 entries

- QR scan to access total package information

# Quick Access for Shop & Field

Shop Pre-Fabrication access and tracking

**stratus** Part QR Code Scanned

**Project**  
20-24-26871 NSD - Crystal Springs

**Model**  
NSD-CrystalSprings-HER-HVAC

**Package**  
CRY5-L1B-PK38-SA&RA

**Assembly**  
SD-058

**Description**  
16x14 L97 (Straight - Rectangular (Decolled))  
[56-1/16 in]

**Number**  
L97

[View Package](#)

[View Assembly](#)

**stratus** Dashboard Views

Project: 20-24-26871 - 20-24-26871 NSD - Crystal Springs | Model: NSD-CrystalSprings-HER-HVAC | View: STATUS HVAC Level 2 & Roof [DC] - Package: CRY5-L1B-PK38-SA&RA | Assembly: SD-058

Tracking: Status: Keep Shipped | Division: [No Division] | Comment: | Hours: | Cost Type: Hangers And Supports - Shop Labor | Apply

SD-058

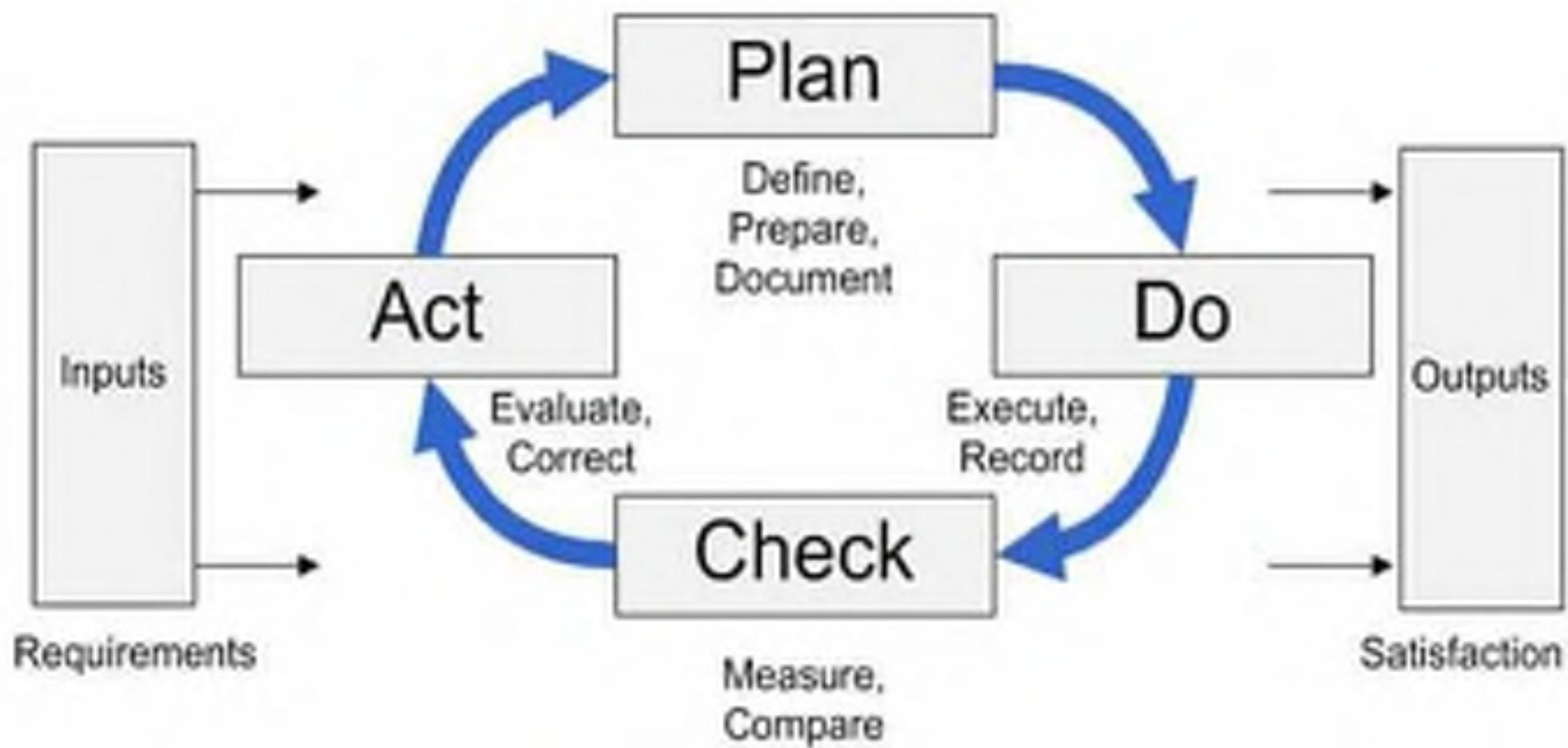
Parts: Status Sheet CAD Sheet Markups Notes Attachments Tracking Part Tasks

Parts: Send & Check to Tool Report SM\_Parts List (Package View)

Quantity	Number	Part Tracking Status	Description	Size	Length	01	02	Fabrication_Notes	Attachments
1	L96	Keep Shipped	Straight - Rectangular	16"x14"	56-1/16"	TDF DUOT-24	TDF DUOT-24	Empty	[M]
1	L97	Keep Shipped	Straight - Rectangular	16"x14"	56-1/16"	TDF DUOT-24	TDF DUOT-24	Empty	[M]
1	L98	Keep Shipped	Tap - ATTO with VD	10"ø	8-1/8"	2 in SM BEAD	None	Empty	[M]
1	L95	Keep Shipped	Tap - ATTO with VD	10"ø	8-1/8"	2 in SM BEAD	None	Empty	[M]

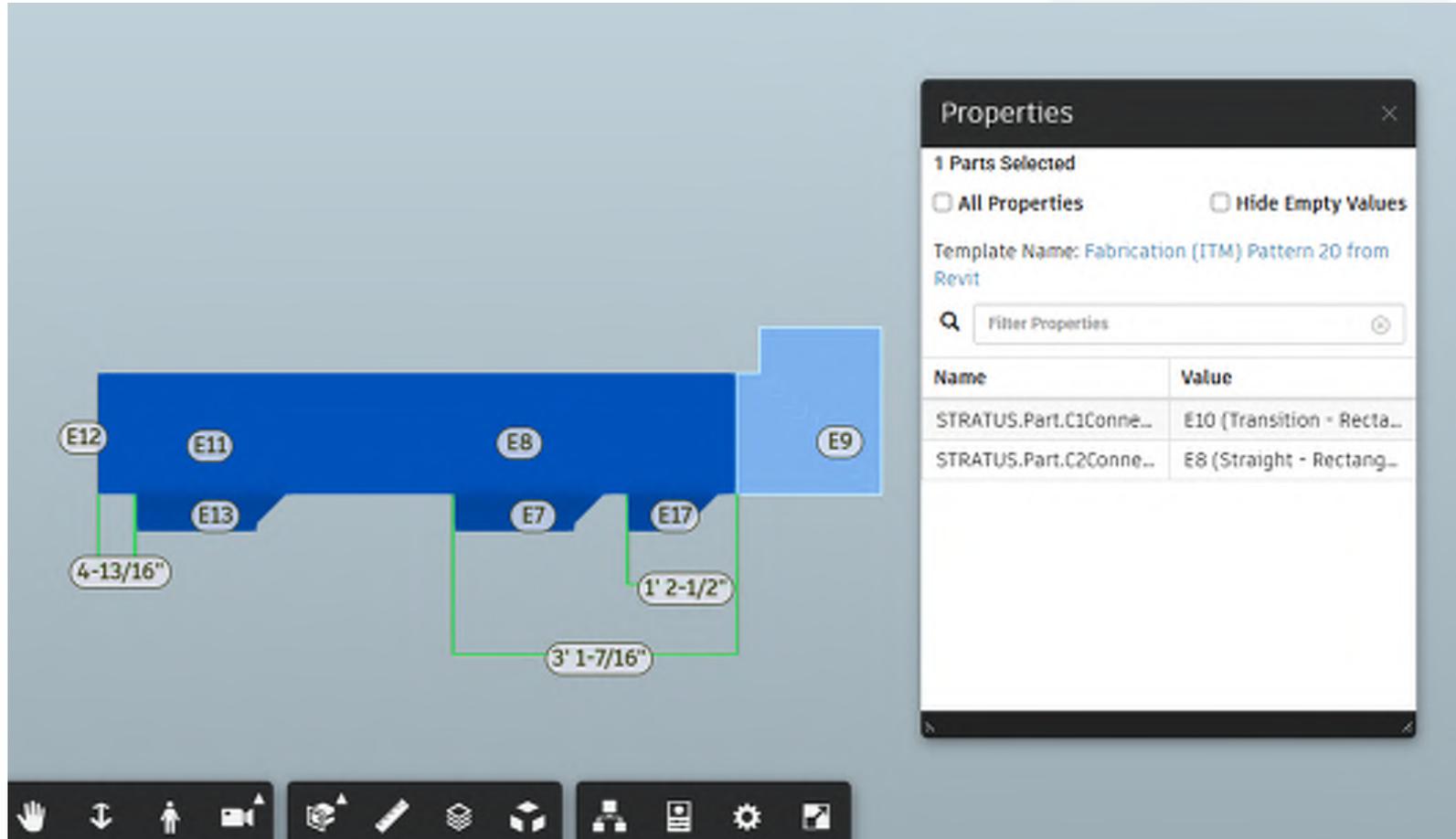
Showing items 1 to 4 of 4 entries

- QR scan to access assembly information



# Problem!

## Straight Extensions



### Problem:

Detailers keep adding odd extensions to duct! I can't tell what goes where!

### Digital Workflow Solution:

Add C1/C2 connectors to Stratus properties

# Problem!

## Shipping Weights

The screenshot shows the Stratus software interface with a table of package data. The 'Total Weight' column is highlighted with a red box. The table has the following columns: Package\_Name, Description, New\_Sub Job, Old\_Sub Job, Jobsite Delivery Date, Assemblies, Total Parts, Coil Duct Count, Spiral Count, Total Weight, Package Color, Category, Status, and Shop\_Comments. The data rows are as follows:

Package_Name	Description	New_Sub Job	Old_Sub Job	Jobsite Delivery Date	Assemblies	Total Parts	Coil Duct Count	Spiral Count	Total Weight	Package Color	Category	Status	Shop_Comments
AZS-4-5-PK176-L2-EF-G16-EXHAUST DUCT		006	Empty	10/06/2025	0	3	0	1	42	Red	SMF	AZ Shipped	DELIVERY 10/3
AZS-4-5-PK171-RF-DHU-6-3 IH CURB	DHU-6.3 INTAKE HOOD CURB	008	Empty	9/03/2025	0	1	0	0	0	Pink	SMF	Field Received	Empty
AZS-4-5-PK169-L1-OFFICE FUME EXHAUST		006	Empty	8/29/2025	0	24	0	0	306	White	SMF	Field Received	Empty
AZS-4-5-PK152-ROOF-DHU-RHU-FLUE VENT CURBS		008	Empty	8/26/2025	0	5	0	0	19	Pink	SMF	Field Received	Empty
AZS-4-5-PK165-L2-DHU-6-3-RETURN MAIN		007	Empty	8/01/2025	13	27	0	0	5620	Pink	SMF	Field Installed	Empty
AZS-4-5-PK159-L2-DHU-6-1-6-2-		007	Empty	8/01/2025	19	41	0	0	9723	White	SMF	Field Installed	Empty

### Problem:

Sending KD duct to another shop out of state. Max load capacities are being reached.

### Digital Workflow Solution:

Add weight column to package dashboard. No reports – live data

# Problem!

## Belly Bands – WHERE ARE THEY?!

The screenshot shows the Stratus software interface. On the left is a 3D model of a duct system with various components labeled (e.g., HGR-46, RA-142, R116). On the right is the 'Attachments' table, which lists several reports. A red box highlights the 'Package - CSV Report' entry for 'LGES\_HER\_HVAC\_1F0\_B-9\_AL\_R22 - SM\_Weight Report - Fab Only.csv'. Below this, another red box highlights a table with three columns: 'Field\_Comments', 'Coil Duct Processed', and 'Spiral Duct Processed'. The 'Field\_Comments' cell contains the text 'BELLY BANDS DONE. AT AZ SHOP. SENT LAST TRAILER.'.

Source Type	Source Name	File Name		
Package	AZS-8-9-PK19-L1-L2-RHU-ME31-RETURN	AZS-8-9-PK21-L1-L2-RHU-ME31-RETURN-8-MAP.pdf		
Package	AZS-8-9-PK19-L1-L2-RHU-ME31-RETURN	AZS-8-9-PK19-L1-L2-RHU-ME31-RETURN.maj	5/02/2025 09:28 AM	
Package - CSV Report	AZS-8-9-PK19-L1-L2-RHU-ME31-RETURN - Hem	AZS-8-9-PK21-L1-L2-RHU-ME31-RETURN - Hem - SM - Hanger - Belly Band (HAB).csv	5/01/2025 10:34 AM	
Package - CSV Report	AZS-8-9-PK19-L1-L2-RHU-ME31-RETURN	LGES_HER_HVAC_1F0_B-9_AL_R22 - SM_Weight Report - Fab Only.csv	5/06/2025 12:47 PM	

Field_Comments	Coil Duct Processed	Spiral Duct Processed
<a href="#">BELLY BANDS DONE. AT AZ SHOP. SENT LAST TRAILER.</a>	Yes	Sent to Workstaton

### Problem:

Belly Bands are not apart of our MAJ reporting

### Digital Workflow Solution:

Automate a belly band report when Issued for Fabrication Status is toggled

# Problem!

## Shipping - Centralized Location for All Shipments

The screenshot shows the Stratus web application interface. The top navigation bar includes 'stratus' and menu items: Projects, Models, Packages, Assemblies, Containers (selected), Shops, Scan, Jobsites, Shift, and Admin. Below the navigation bar, there are tabs for 'Dashboard' and 'Assign'. The main content area is titled 'Containers' and features a table with the following columns: Type, Name, Description, Trailer Type, Material Returned?, Stage Date (Shop), Expected Delivery Date (Jobsite), Date Shipped, Date Recieved (Jobsite), Bill Of Lading, and Comments. The table contains six rows of data, each representing a trailer shipment.

Type	Name	Description	Trailer Type	Material Returned?	Stage Date (Shop)	Expected Delivery Date (Jobsite)	Date Shipped	Date Recieved (Jobsite)	Bill Of Lading	Comments
Trailer	AZ-MAIN-Trailer-K02-10-20	Arizona Trailer	Dry Van	No	10/20/2025	10/23/2025	10/21/2025	10/24/2025	241192	Inland Transport
Trailer	AZ-MAIN-Trailer-2029-10-8	Arizona Trailer	Dry Van	No	10/07/2025	10/13/2025	10/10/2025	10/17/2025	237359	Inland Transport
Trailer	AZ-MAIN-Trailer-A5370	Arizona Trailer	Dry Van	No	10/01/2025	10/09/2025	10/07/2025	10/13/2025	239851	Inland Transport
Trailer	AZ-MAIN-Trailer-1840	Arizona Trailer	Dry Van	No	9/10/2025	10/03/2025	10/01/2025	10/06/2025	237359	Inland Transport
Trailer	AZ-MAIN-Trailer-B1001	Arizona Trailer	Dry Van	No	9/10/2025	9/22/2025	9/19/2025	9/25/2025	237851	Inland Transport

### Problem:

Due to expansion – paper trail shipment tracking is a nightmare

### Digital Workflow Solution:

Integrated shipment trackings

# Problem!

## Field - WHATS IN MY DELIVERY?!

The screenshot displays the Stratus software interface. At the top, a navigation bar includes 'stratus' and various menu items like 'Projects', 'Models', 'Packages', 'Assemblies', 'Containers', 'Shops', 'Scan', 'Jobsites', 'Shift', and 'Admin'. Below this, a secondary bar shows 'Dashboard' and 'Assign' tabs. A central bar displays container information: 'Container AZ-MAIN-Trailer-K02-10-20' and a list of items with counts: All (2122), Area (1), Basket (114), Box (1), Cart (1011), Pallet, Rack (306), Shelf, Shipping (1), Trailer (682), and Truck (6).

The main interface is divided into two sections. On the left, 'Scan Items into Container' includes a 'Manual Selection' area with dropdowns for 'Project' (set to 'Empty') and 'Model' (set to 'Empty'). On the right, 'Contents of AZ-MAIN-Trailer-K02-10-20' shows a red 'Empty Container' warning and a table of packages:

Package	Source
AZS-6-7-PK241-L1-SA-RA-DUCT MOD-EQUIP PATHWAY	Project: 21-24-25751 - 21-24-25751 Project Alpha
AZS-PK239-L1-RHU-LG1-1-LG1-2-SA-ELBOWS	Project: 21-24-25751 - 21-24-25751 Project Alpha

At the bottom, a 'Tracking' section features a filter bar with 'Status' (set to 'Container Loaded'), 'Division' (set to '[No Division]'), 'Hours' (set to '0'), and 'Cost Type' (set to 'Hangers'). Below the filter is a table with columns for 'User', 'Date-Time', 'Status', 'Comment', 'Division', 'Hours', and 'Contents':

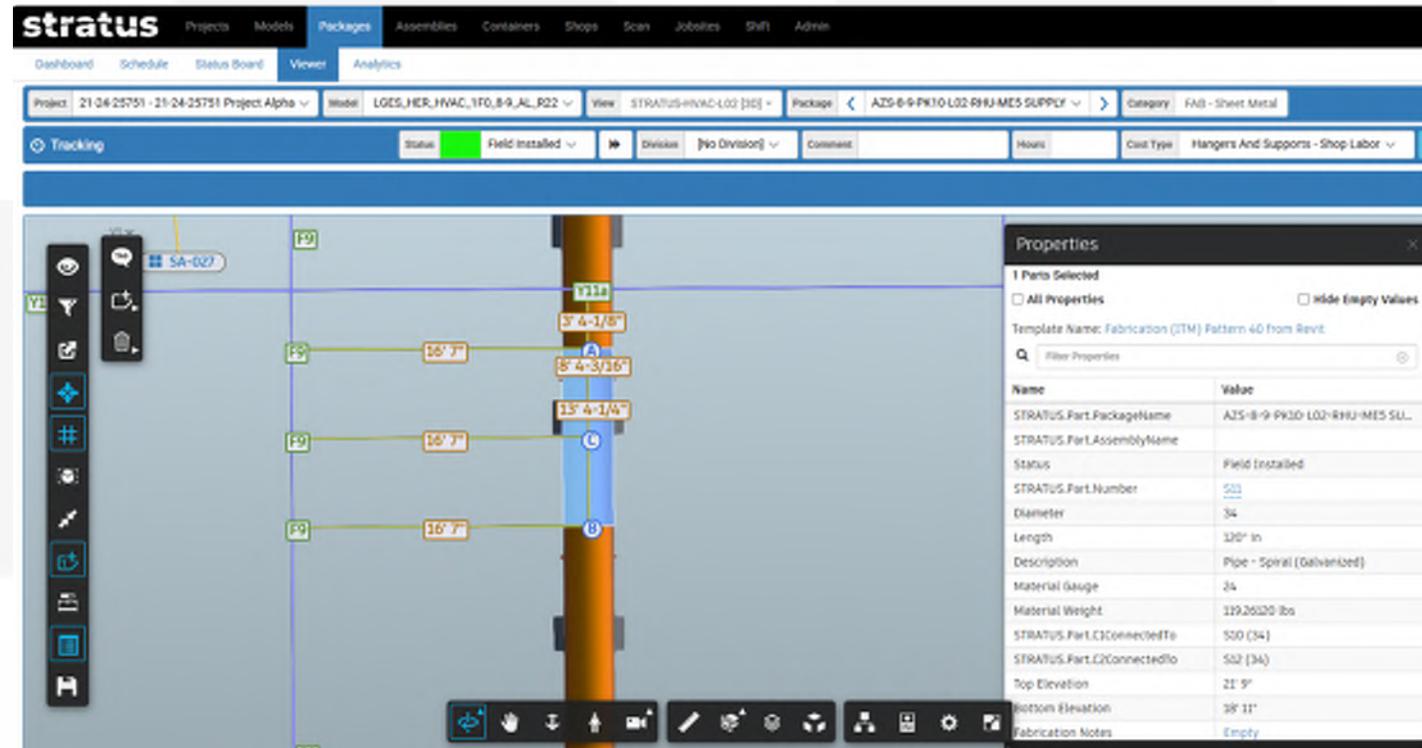
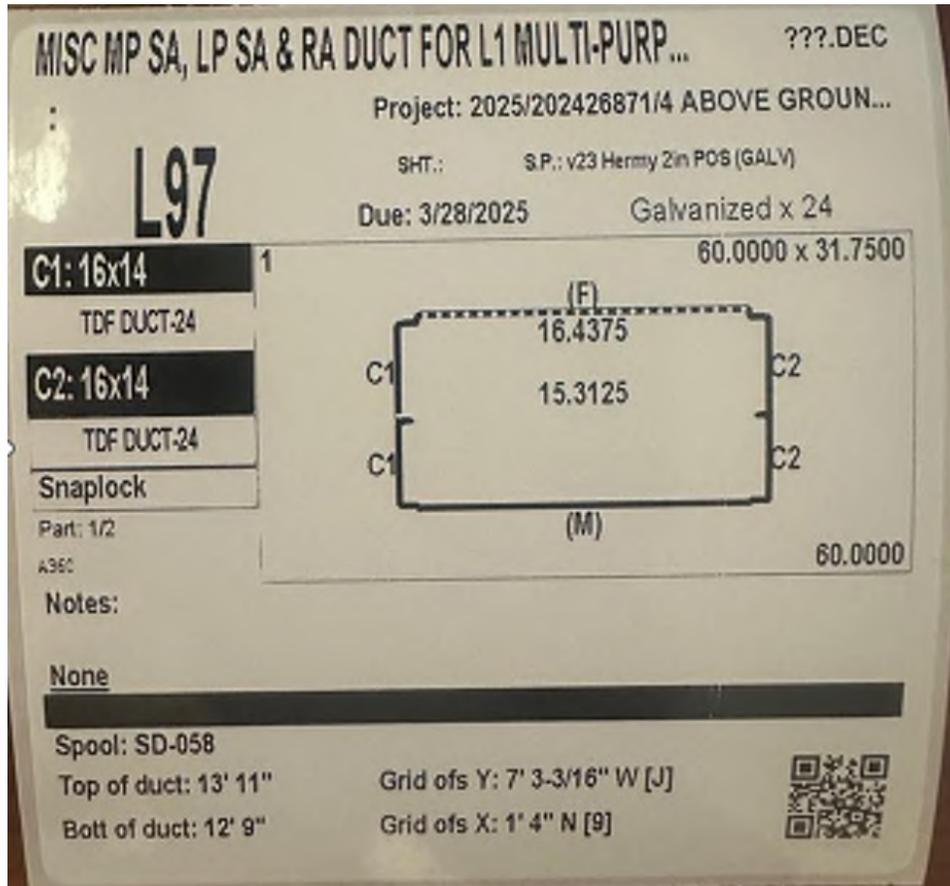
User	Date-Time	Status	Comment	Division	Hours	Contents
Shop PC - SM 02	10/21/2025 06:44 AM	Container Loaded	Stratus Added [AZS-6-7-PK241-L1-SA-RA-DUCT MOD-EQUIP PATHWAY]		0	Package: AZS-PK239-L1-RHU-LG1-1-LG1-2-SA-ELBOWS;Package: AZS-6-PATHWAY
Shop PC - SM 02	10/20/2025 09:31 AM	Container Loaded	Stratus Added [AZS-PK239-L1-RHU-LG1-1-LG1-2-SA-ELBOWS]		0	Package: AZS-PK239-L1-RHU-LG1-1-LG1-2-SA-ELBOWS

**Problem:**  
Field is losing track of shipments.

**Digital Workflow Solution:**  
Digital shipment tracking.

# Problem!

Field – Where do I install?



- Back to connect data



**What is NOT digitized in our process?**

# Stratus / Lockformer Fabrication Management

**MESTEK**  
MACHINERY

◆ a Mestek company

Manage the process of sheet metal systems by enabling the generation of files that directly feeds the lockformer spiral tubeformer HMI, ensuring a seamless transition from design to production.



# Stratus – Workstation App (Longest to Shortest)

**stratus** v7.6.1379.0     **HERM - Medford - Copper And Plastic Pipe**


 All Projects All Packages All Areas No Item Grouping  
 All Models All Spools/Assemblies

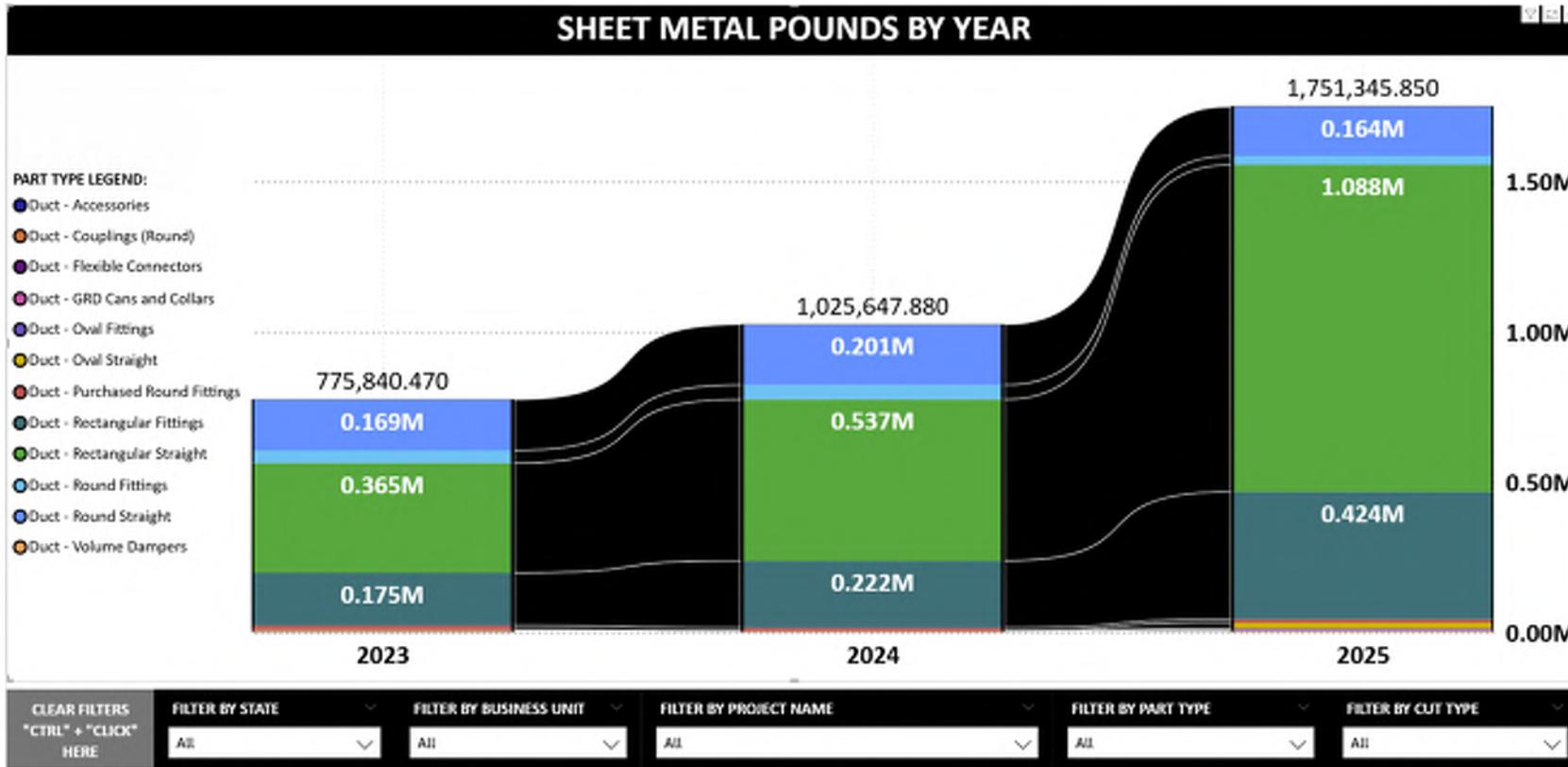




Length	Item	Package	Area	Assembly	Project / Model	Updated
120"	S3802	AZS-L1-4-PK3A-MP SA			21-24-25751 Project Alpha LGES_HER_HVAC_1F0_4-5_AL_R22	Matt Cordova 8/19/2025 10:07:50 AM
93-13/16"	L172	MBMOB-PK56-03-B-LP		SD-290	21-24-24280 Mary Bridge MOB MBCH-HVAC_MOB_22	Matt Cordova 8/19/2025 10:05:50 AM
74-1/2"	L328	MBMOB-PK56-03-B-LP		SD-286	21-24-24280 Mary Bridge MOB MBCH-HVAC_MOB_22	Matt Cordova 8/19/2025 10:05:50 AM
58-3/4"	S38	AZS-L1-4-PK3A-MP SA		SA-041	21-24-25751 Project Alpha LGES_HER_HVAC_1F0_4-5_AL_R22	Matt Cordova 8/19/2025 10:07:50 AM
57-15/16"	L176	MBMOB-PK56-03-B-LP		SD-292	21-24-24280 Mary Bridge MOB MBCH-HVAC_MOB_22	Matt Cordova 8/19/2025 10:05:50 AM
57"	S3803	AZS-L1-4-PK3A-MP SA			21-24-25751 Project Alpha LGES_HER_HVAC_1F0_4-5_AL_R22	Matt Cordova 8/19/2025 10:07:50 AM
54-1/16"	L271	MBMOB-PK56-03-B-LP			21-24-24280 Mary Bridge MOB MBCH-HVAC_MOB_22	Matt Cordova 8/19/2025 10:05:50 AM
42"	S3801	AZS-L1-4-PK3A-MP SA		SA-041	21-24-25751 Project Alpha LGES_HER_HVAC_1F0_4-5_AL_R22	Matt Cordova 8/19/2025 10:07:50 AM
27-1/16"	L173	MBMOB-PK56-03-B-LP		SD-291	21-24-24280 Mary Bridge MOB MBCH-HVAC_MOB_22	Matt Cordova 8/19/2025 10:05:50 AM
21-5/8"	L174	MBMOB-PK56-03-B-LP		SD-292	21-24-24280 Mary Bridge MOB MBCH-HVAC_MOB_22	Matt Cordova 8/19/2025 10:05:50 AM
20-1/2"	S3805	AZS-L1-4-PK3A-MP SA		SA-024	21-24-25751 Project Alpha LGES_HER_HVAC_1F0_4-5_AL_R22	Matt Cordova 8/19/2025 10:07:50 AM
11-13/16"	L171	MBMOB-PK56-03-B-LP		SD-290	21-24-24280 Mary Bridge MOB MBCH-HVAC_MOB_22	Matt Cordova 8/19/2025 10:05:50 AM
LAST CUT ITEM						
58-3/4"	S38	AZS-L1-4-PK3A-MP SA		SA-041	21-24-25751 Project Alpha LGES_HER_HVAC_1F0_4-5_AL_R22	Matt Cordova 8/19/2025 5:41:49 PM

# Company-Wide Data Tracking

## Tying Data to Power BI for Global Tracking



- Data points recorded through PowerBI
- Total weights processed by our shop year over year
- Fitting to coil ratios tracked



# Thank you

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*Hermanson Company*



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Scan for Contact Info

# **stratus**

Booth #202

